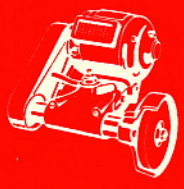
DUMORE®

Catalog
55-FL

precision tools

for production,
tool room,
and maintenance





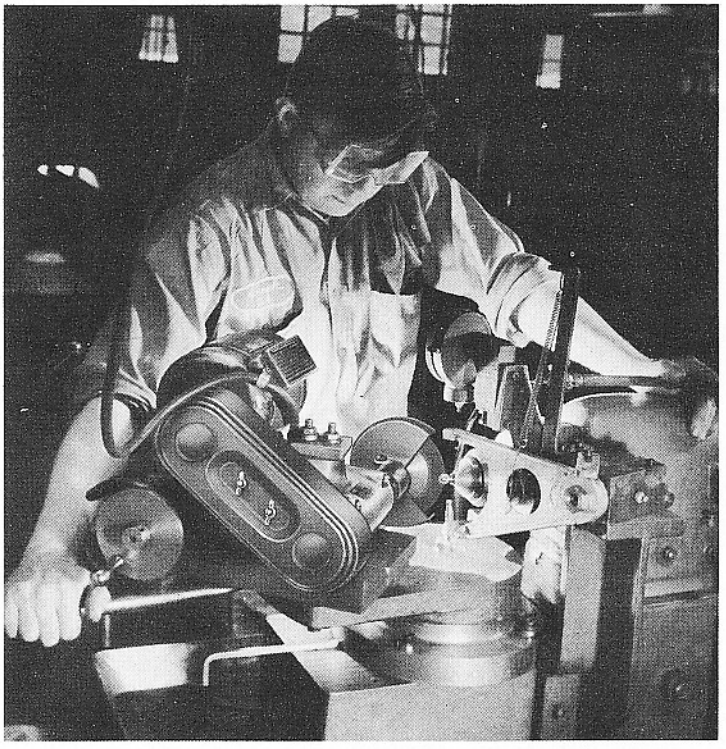

Distributed by

DUMORE®

DUMORE PRECISION TOOLS
RACINE, WISCONSIN, U.S.A.

TOOL INDEX

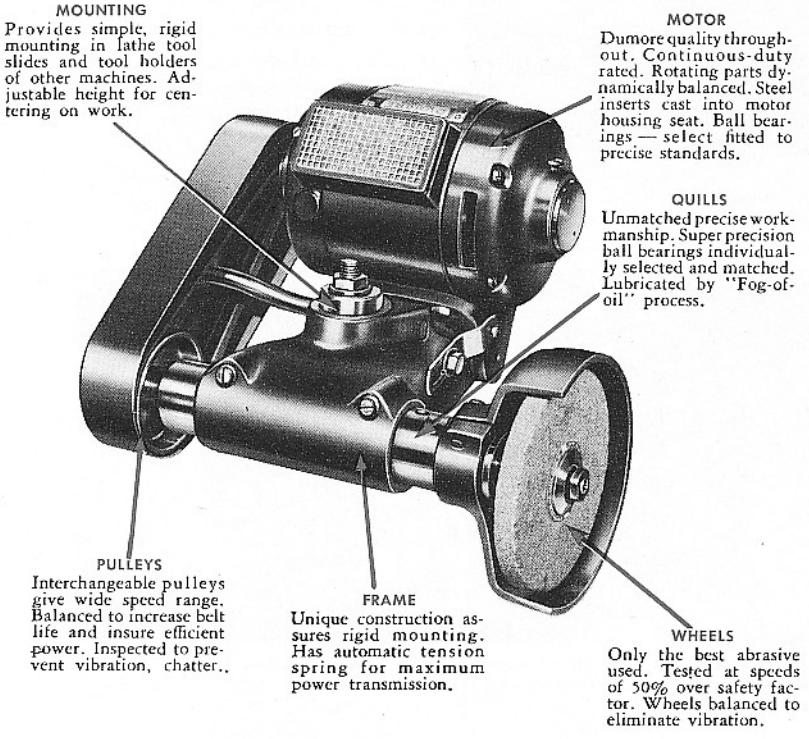
TOOL POST GRINDERS®



Whenever precision of fit or finish is essential, and tooling cost is a vital consideration, Dumore portable tool-post grinders will provide the complete answer. They are built for use on existing shop equipment (lathes, milling machines, planers, shapers, boring mills, universal grinders).

In fact, mounted on any basic machine, a Dumore tool-post grinder provides a more versatile tool that will not only machine the workpiece, but will finish grind it without changing setup or switching the job to another machine.

Furthermore, a Dumore grinder delivers work of highest quality, so precise that operations accurate to .0001", with surface finishes of 6 to 8 micro-inches, can easily be performed.



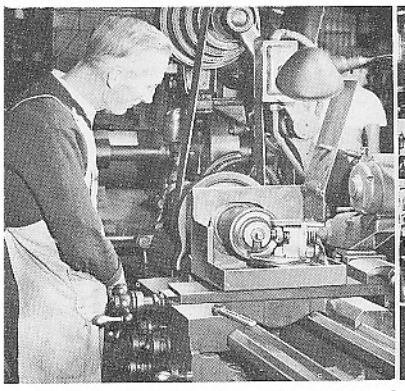
The Dumore Tool-Post Grinder consists of an abrasive wheel mounted on a vibrationless spindle (or quill) driven by belt from an integrally mounted motor. It operates at a high enough speed under load to remove material at a desirable productive rate while holding tolerance and providing the finish desired.

The quill on large models is interchangeable to permit internal grinding at various depths. Depth of cut can be regulated by positioning the wheel to the work. Wheel speeds can be varied by changing pulley ratio between motor and spindle. Setup and operation are extremely simple, and can be handled without difficulty by regular machine operators.

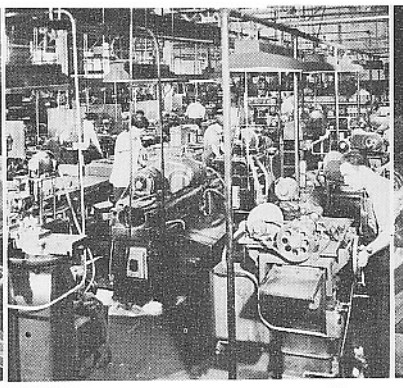
DUMORE PRECISION TOOLS

TOOL POST GRINDERS

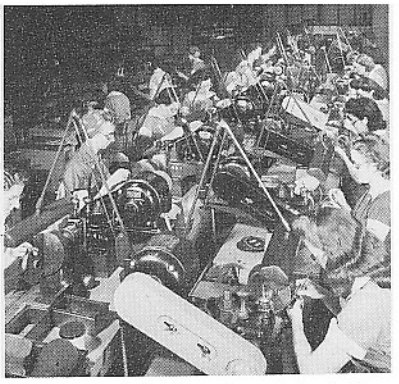
HIGH PRODUCTION TOOLS



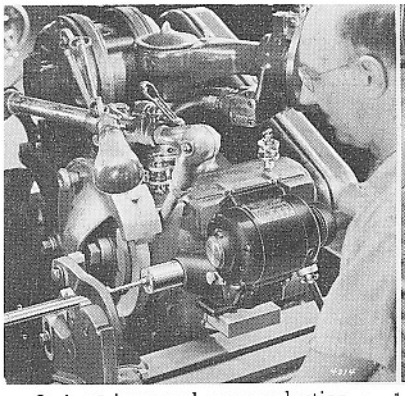
With a Series 7, this shop grinds ball races for only 8¢ per piece in addition to labor costs.



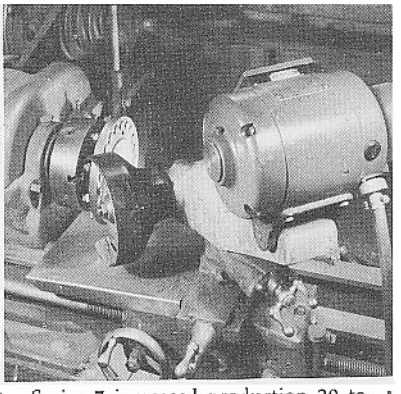
Series 5's and 7's on used miller bases cut costs, hike output for Chicago firm.



Battery of Series 12's grinds drill clearances, polishes flutes for tool company.



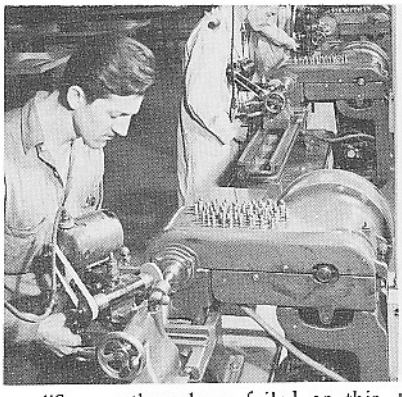
Series 5 increased cam production—360% — from two cams per day to nine per hour.



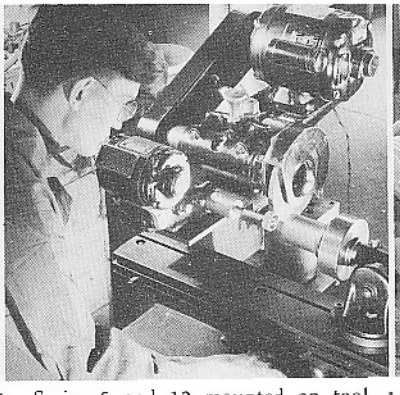
Series 7 increased production 20 to 1 on this tough nickel-steel grinding job.

Production men say the Dumore grinder is the busiest tool in the shop. They like its flexibility, the high-quality work it turns out. They find that Dumore tools often pay for themselves on the first job . . . offer an amazing potential for reducing labor and handling costs . . . increasing machine capacity . . . improving product quality.

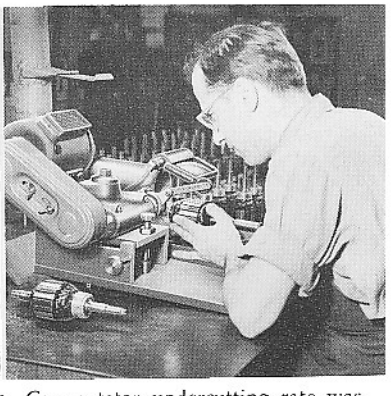
All Dumore grinders have continuous-duty rated motors and are ideally suited for production work.



"Seven other shops failed on this tough valve job. Our Dumore 44's produce 600 sets per shift."



Series 5 and 12 mounted on tool grinder finish i.d. and o.d. with one chucking.

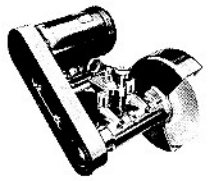


Commutator undercutting rate was tripled by using a Series 5 and a low-cost fixture.

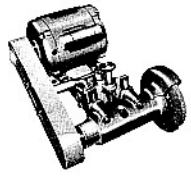
TOOL POST GRINDERS

SELECT YOUR GRINDER FROM 9 MODELS

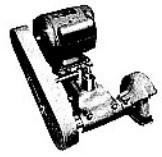
Choose according to type of service and size of machine on which it is to be mounted.



SERIES 25 — Converts any standard machine tool into a big capacity grinder. For heavy duty external grinding applications in production and maintenance. Mounts on lathes 20" or larger. 3 hp, 3-phase, induction motor. External quill only, swings 12" diameter wheel.

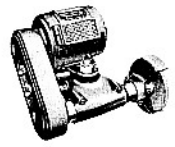


SERIES 12 — A workhorse for larger work and heavy cuts, and for continuous operation when high spindle speeds are not required. Recommended for lathes with 20" and larger swing. Handles up to 8" wheels. 1 hp capacitor start, induction run motor for constant speed. Four interchangeable quills.

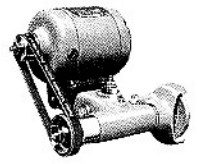


SERIES 77 — Especially good where most work is external or heavy internal grinding. Strongly recommended for continuous operation on production and semi-production jobs. For use on lathes with 16" to 22" swing. Takes up to 6" wheels — ½ hp capacitor start, induction run motor for constant speed. Ten interchangeable quills.

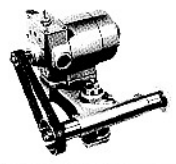
SERIES 7 — For medium-heavy internal and external work and larger toolroom work. Wide application range. For use on lathes with 16" to 22" swing. Takes up to 5" wheels — ¾ hp distributed field, universal motor. Ten interchangeable quills.



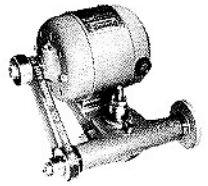
SERIES 5—Most versatile grinder of the Dumore line for all-purpose work. For tool room and shops where a very wide range of work must be handled. Recommended for lathes with 13" to 18" swing. Handles up to 5" wheels — ½ hp distributed field, universal motor. Eleven interchangeable quills.



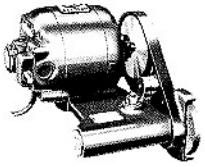
SERIES 44 — Recommended for light production, tool-room and maintenance grinding on small lathes. For use on lathes with 9" to 13" swing. Takes up to 3" dia. x ⅜" face wheels. Wide range of spindle speeds. ¼ hp series, universal motor. "Built-in" quill for external work. Extension arbor supplied for internal grinding with small-diameter straight wheels — screw-in chuck supplied for internal grinding with mounted wheels.



SERIES 11 — Ideal for small-parts manufacturing and shallow internal jobs on small lathes. From 8" to 11" swing. Handles up to 2" dia. x ¼" face wheels — two spindle speeds — ⅛ hp universal motor. "Built-in" quill for external work. Screw-on chuck for internal grinding with mounted wheels.



SERIES 14—Recommended for industrial precision grinding of small parts and general small precision grinding in school and home shops. For use on smaller bench and home workshop lathes with 6" to 8" swing. Takes up to 2" dia. x ¼" face wheels. Two spindle speeds, 1/14 hp universal motor. "Built-in" quill for external work. Screw-in chuck for internal grinding with mounted wheels.



SERIES 18 — Here's an external grinder for machine shops; garages; repair, welding and metalizing shops; hobbyists or general shops. Converts any 9" to 13" lathe to a precision grinding machine. Swings up to a 4" wheel. Can be bench or vise mounted to serve as off-hand grinder, polisher, buffer, or wire brusher.

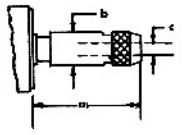
DUMORE PRECISION TOOLS

TOOL POST

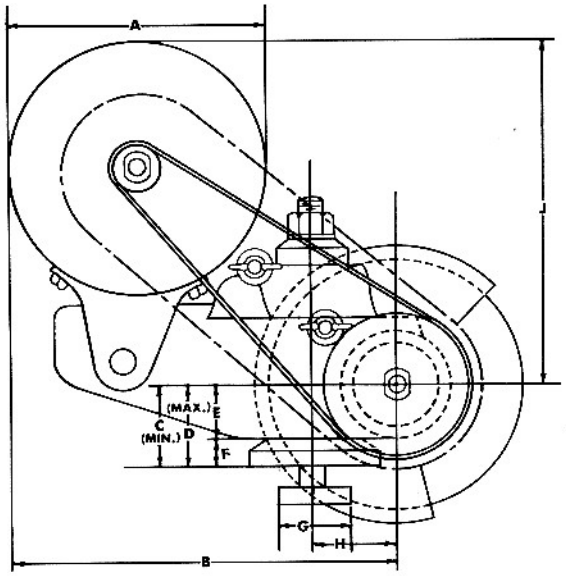
GRINDERS

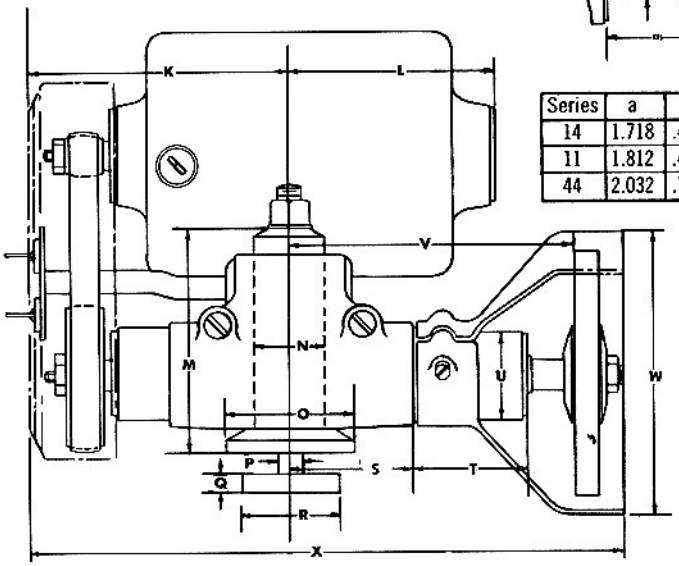
COMPOSITE DIMENSION TABLE

Internal grinding set-up
Internal quill grinders



Series	a	b	c
14	1.718	.428	1/8 & 3/32
11	1.812	.428	1/8 & 3/32
44	2.032	.740	1/8 & 1/4





GRINDER SERIES	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
25	6 3/8	15 1/2	2 1/8	3 27/32	2 1/8 to 3 27/32	....	3 1/4	3 9/16	10 7/16 8 23/32	9	6 1/32	...	1	....	1	1/2	3 1/8	3 1/8	2 3/16	3.124	7 1/16	13 3/8	20 3/32
12	8 9/16	17 15/16	2 1/8	3 27/32	2 1/8 to 3 27/32	....	3 1/4	3 9/16	12 1/32 to 10 5/16	8 7/8	4 15/16	...	1	....	1	1/2	3 1/8	3 1/8	2 1/32	3.124	6 21/32	9 3/16	17 21/32
77	6 9/32	13 9/32 to 14 27/32	1 13/16	3 1/2	1 1/4	9/16	2	2 7/16	9 1/8	5 15/16	4 23/32	6	1.499	3 1/2	1/2	7/16	3	2 3/4	2 9/32	1.999	5 17/32	4 1/16 to 6 3/4	13 1/4
7	4.985	11	1 13/16	3 1/2	1 1/4	9/16	2	2 7/16	8 9/16	5 15/16	4 5/16	6	1.499	3 1/2	1/2	7/16	3	3	2 9/32	1.999	5 25/32	4 1/16 to 6 3/4	12 1/8
5	4.985	8 3/16	1 5/8	2 1/16	1 1/8	1/2	1 5/16	1 3/4	6 1/8	5 5/8	4 3/16	4 5/8	1.499	2 11/16	1/2	3/8	2 1/2	2 19/32	2 7/16	1.750	5 29/32	5 3/4	12 5/8
44	4.500	7	3 1/32	1 15/16	2 5/32	3/16	1 1/4	1 3/16	6 5/16	4 11/16	3 1/32	3 1/2	.999	2 1/4	3/8	1/4	2	1 31/32	1 5/32	1 1/2	3 17/32	3 5/8	9 3/16
11	3 15/32	5 7/8	2 7/32	2 5/32	2 1/32	3/16	1 1/4	1	5 3/16	3 13/16	3 15/16	3 1/2	.999	2 1/4	3/8	1/4	2	2 15/16	3 1/32	1.112	4 21/64	....	8 25/32
14	3 3/8	4 1/8	3/4	1 3/8	1/2	1/4	1 1/4	7/8	3 15/16	3 15/32	2 13/32	2	.749	2	5/16	3/16	1 3/4	2 3/16	....	1	2 1/2	....	6 5/8
18	6 5/16	4 1/8	3/4	....	.....	....	1 1/4	1 1/4	6 3/4	4	7 1/4	2 1/8	.....	....	1/2	1/4	2	1 3/4	....	.....	2 1/8	4 5/8	11

TOOL POST GRINDERS ®

GRINDER SELECTOR CHART

LATHE Dim. in Inches	6″	7″	8″	9″	10″	11″	12″	14″	15″	16″	18″	20″	22″	24″	26″
AMERICAN							*44 *5 7 77	*5 7 77		*5 *7 *77	5 *7 *77	*7 *77 *12 *25		7 77 *12 *25	
B. C. AMES			14 *11												
ATLAS	*14				14 *11 *44 5										
AXELSON								44 *5 *7 *77		*5 *7 *77	5 *7 *77 12	5 *7 *77 *12 *25		77 *12 *25	
BOYE & EMMES								44 *5 7 77		*5 *7 *77	*5 *7 *77	5 *7 *77 *12 *25	7 77 *12 *25	7 77 *12 *25	
BRADFORD							44 *5 7 77	*5 *7 77		*5 *7 *77					
CARROLL & JAMIESON									*5 *7 *77	*5 *7 *77					
CHARD										44 *5 *7 *77	*5 *7 *77	5 *7 *77		7 77 *12 *25	7 77 *12 *25
CLAUSING							14 11 *44								
DELTA						14 11 *44 5	*44 *5 7								
HARDINGE		*14		14 *11 *44 5											
HENDEY				14 *44 5			*44 *5 7 77	*5 *7 77		*5 *7 *77	5 *7 *77 12	5 *7 *77 *12 *25		77 *12 *25	
HJORTH			14 *11 44												
LE BLOND							11 *44 *5 7	44 *5 7 77		*5 *7 *77 12	5 *7 *77 12	5 *7 *77 *12 *25	7 77 *12 *25	77 *12 *25	
LEHMANN										*5 *7 *77	5 *7 *77	5 *7 *77 12 25	7 77 *12 *25	7 77 *12 *25	
LIPE-ROLLWAY				11 *44 *5											

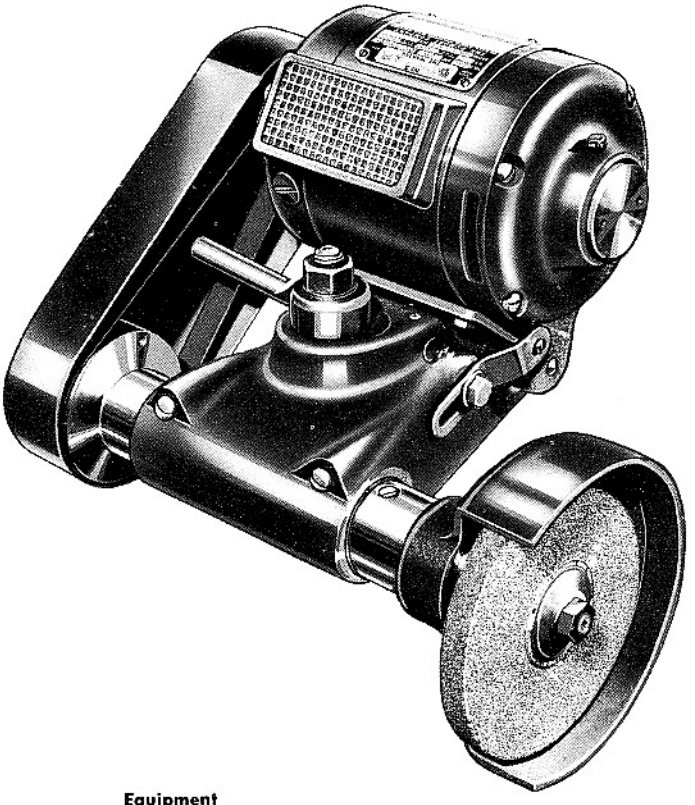
LATHE Dim. in Inches	7″	8″	9″	10″	11″	12″	13″	14″	15″	16″	18″	20″	22″	24″	26″
LODGE & SHIPLEY						*44 *5 7 77		44 *5 7 77		*5 *7 *77	5 *7 *77 12 25	7 *77 12 25		7 77 *12 *25	7 77 12 *25
LOGAN				14 11 *44	14 11 *44	14 11 *44									
McDOUGALL										*5 *7 77	5 *7 *77	5 7 *77	7 *77	7 77 *12 *25	7 77 *12 *25
MONARCH				11 *44 *5		*44 *5 7 77		44 *5 *7 77		*5 *7 *77	5 *7 *77	5 *7 *77 *12 *25	7 77 *12 *25	7 77 *12 *25	
PRATT & WHITNEY	14 *11			14 *11 *44		*44 *5 7 77	*5 7 77	*5 7 77		*5 *7 *77		5 *7 *77 *12 *25			
REED PRENTICE								44 *5 7 77		*5 *7 *77		5 *7 *77 *12 *25			
RIVETT		14 *11	14 *11	14 *11											
REGAL (LE BLOND)				14 11 *44		11 *44 *5 7	11 *44 *5 7	44 *5 7 77	44 *5 *7 *77	*5 *7 *77		5 *7 *77		7 *77 *12 *25	
ROCKFORD						*44 *5 7 77		*5 7 77		*5 *7 *77					
SEBASTIAN				14 11 *44 5		*44 *5 7 77	*5 7 77			*5 *7 *77		5 *7 *77			
SENECA FALLS		14 11 *44	14 11 *44	14 11 *44	11 *44 *5 7	11 *44 *5 7	44 *5 *7 77	44 *5 *7 77							
SHELDON				11 *44 5	11 *44 *5	44 *5 7 77									
SOUTH BEND			14 11 *44	14 11 *44			44 *5 7 77	*5 7 77		*5 *7 *77	5 *7 *77			7 77 *12 *25	
SPRINGFIELD								*5 7 77		*5 *7 *77	5 *7 *77 12 25	7 *77 *12 *25		77 *12 *25	
STARK	*14		14 *11												
WALKER TURNER						14 *11 *44 *5 7 77									

*Dumore Recommendations

TOOL POST

GRINDERS

series **5**



Nothing better for tool rooms and shops where a very wide variety and range of work must be handled. Grinds to .0001" accuracy quickly and easily. Work range from external grinding to internal at depths to 18". Minimum internal work diameters from ⅛" at shallow depths to 1⅞" at 18" depth. Series 5 is most popular of Dumore's complete line of portable precision grinders because its universal adaptability makes possible an exceptionally wide range of operations.

Powered by Dumore ½ hp distributed field universal motor; spindle speeds 4,600 to 42,500 rpm; ⅛" to 5" wheel capacity. Vibrationless operation . . . automatic belt tension. Special precision ball bearings are select fitted. All quills equipped with slingers for wet and dry grinding. Available with special oiling system for continuous vertical operation.

SPECIFICATIONS

Motor — ½ hp, series universal, filtered fan-cooled ventilation; selective fit ball bearings.

Quills — Interchangeable type; 4600 to 42,500 rpm. Grinding wheel capacity — ⅛ to 5" dia. Internal grinding capacity: see quill specifications below and Page 20. All quills have selective fit ball bearings.

Mounting — Tee bolt with automatic belt adjustment.

Weights — Shipping wt. less quill 46 lbs. Net wt. 29 lbs.

Equipment
2 — belts, special hi-speed, long life
5 — individually balanced pulleys
1 — belt guard
1 — Tee-Bolt
1 — Cat. No. 5-110 diamond wheel dresser
1 — 5" wheel guard
1 — 3 oz. can Dumore Hi-Speed Bearing Oil
1 — steel carrying case
(Wheels and wheel collars supplied with quills)

SELECT GRINDER BY CATALOG NUMBER

5-021 Series 5 grinder complete with motor and equipment, but less quills. 115V AC or DC.

5-022 Same as 5-021, but for 230V AC or DC.

5-021R Series 5 grinder — reversed rotation for back of lathe mounting with motor and equipment, but less quills. 115V AC or DC. (Specify "R" type quills only.)

5-022R Same as 5-021R, but for 230V AC or DC.

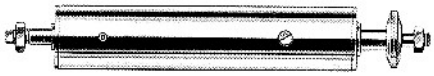
5-011 Series 5 grinder complete with motor and equipment and with one each 5X-250 and 5N-202 quills. 115V AC or DC.

5-012 Same as 5-011 but for 230V AC or DC.

INTERCHANGEABLE QUILLS AND SPINDLES

Eleven quick-change quills make the Series 5 many grinders in one — allow you to make minimum-cost initial purchase . . . then add quills as specific applications arise. Recommended initial equipment is grinder for your shop voltage, plus 5X-250 quill which gives you complete external grinding set-up and 5N-202 quill which handles internal grinding down to 11/16" dia. and 2 1/16" deep. Alternate recommendation for initial equipment is grinder with 5T-200 insert type quill which gives you complete external set-up, internal set-up for holes down to ⅛" diameter and internal set-ups for grinding down to 9/16" dia. up to 6" deep.

EXTERNAL TYPE



5X-250 TWO-BEARING EXTERNAL TYPE QUILL — complete with two balanced wheel collars and three assorted, general purpose balanced wheels (3", 4" and 5" dia.). Handles wheels to 5" dia. Maximum recommended speed 15,000 RPM.

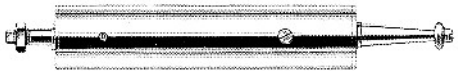
5X-250R Same as 5X-250 but with left hand threads for use on "R" type grinders for reversed operation for back-of-lathe mounting.

MOUNTED WHEEL TYPE

5C-260 TWO-BEARING CHUCK TYPE QUILL — for internal grinding complete with chuck, one each 1/8" and 1/4" precision collets and four assorted mounted wheels. Handles 1/8" and 1/4" shank dia. mounted wheels. Maximum recommended speed 42,500 RPM.

5C-260R Same as 5C-260 but with left hand threads for use on "R" type grinders for reversed operation for back-of-lathe mounting.

TWO-BEARING INTERNAL TYPE



5N-202 TWO-BEARING INTERNAL TYPE QUILL — complete with four balanced wheel collars and three general purpose wheels. For internal grinding down to 11/16" dia. and 2 1/16" deep. Maximum recommended speed 32,500 RPM.

5N-202R Same as 5N-202 but with left hand threads for use on "R" type grinders for reversed operation for back-of-lathe mounting.

5N-203 TWO-BEARING INTERNAL TYPE QUILL — complete with one balanced wheel collar and two general purpose wheels. For internal grinding down to 11/16" dia. and 3 1/8" deep. Maximum recommended speed 25,000 RPM.

5N-205 TWO-BEARING INTERNAL TYPE QUILL — complete with one balanced wheel collar and two general purpose wheels. For internal grinding down to 11/16" dia. and 5 1/8" deep. Maximum recommended speed 15,000 RPM.

THREE-BEARING INTERNAL TYPE

5N-306 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose wheels. For internal grinding down to 7/8" dia. and 6" deep. Maximum recommended speed 18,000 RPM.

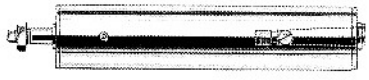
5N-310 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose balanced wheels. For internal grinding down to 1 1/4" dia. and 10 11/32" deep. Maximum recommended speed 15,000 RPM.

5N-305 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose balanced wheels. For internal grinding down to 1 5/8" dia. and 5 7/32" deep or 8" deep for 1 7/8" dia. or larger. Maximum recommended speed 15,000 RPM.

5N-309 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose balanced wheels. For internal grinding down to 1 5/8" dia. and 9 7/32" deep or 12" deep for 1 7/8" dia. or larger. Maximum recommended speed 15,000 RPM.

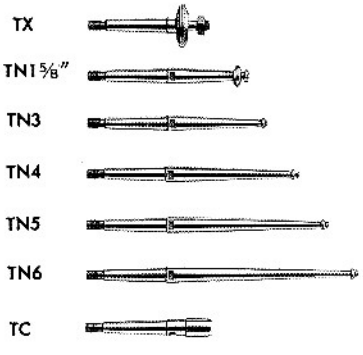
5N-315 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose balanced wheels. For internal grinding down to 1 5/8" dia. and 15 7/32" deep or 18" deep for 1 7/8" dia. or larger. Maximum recommended speed 15,000 RPM.

INSERT SPINDLE TYPE



5T-200 TWO-BEARING INSERT SPINDLE TYPE QUILL — less inserts and collars. Grinding capacity determined by insert spindles below.

7 INTERCHANGEABLE SPINDLES



TC MOUNTED-WHEEL TYPE INSERT SPINDLE — complete with chuck, one each 1/8" and 1/4" precision collet and four assorted mounted wheels. For internal grinding small holes with mounted wheels. Maximum recommended speed 42,500 RPM.

Spindle	Type	RPM	Wheel Capacity 5" x 1/2" x 3/8"	
			Openings Which Can Be Ground	
			Min.	Depth
TX	External	15,000		
TN 1 5/8	Internal	32,500	9/16"	1 5/8"
TN 3	Internal	25,000	9/16"	3"
TN 4	Internal	15,000	9/16"	4"
TN 5	Internal	15,000	9/16"	5"
TN 6	Internal	15,000	9/16"	6"
TC	Collet	42,500	1/8" and 1/4" Shank-Mtd. Wheels	

TX EXTERNAL TYPE INSERT SPINDLE — complete with two balanced wheel collars and three general purpose balanced wheels. For external grinding with wheels up to 5" dia. Maximum recommended speed 15,000 RPM.

TN-1 5/8 INTERNAL TYPE INSERT SPINDLE — complete with two balanced wheel collars and three general purpose wheels. For internal grinding down to 9/16" dia. and 1 5/8" deep. Maximum recommended speed 32,500 RPM.

TN-3 Same as TN-1 5/8 but for internal grinding down to 9/16" dia. and 3" deep. Maximum recommended speed 25,000 RPM.

TN-4 Same as TN-1 5/8 but for internal grinding down to 9/16" dia. and 4" deep. Maximum recommended speed 15,000 RPM.

TN-5 Same as TN-1 5/8 but for internal grinding down to 9/16" dia. and 4" deep. Maximum recommended speed 15,000 RPM.

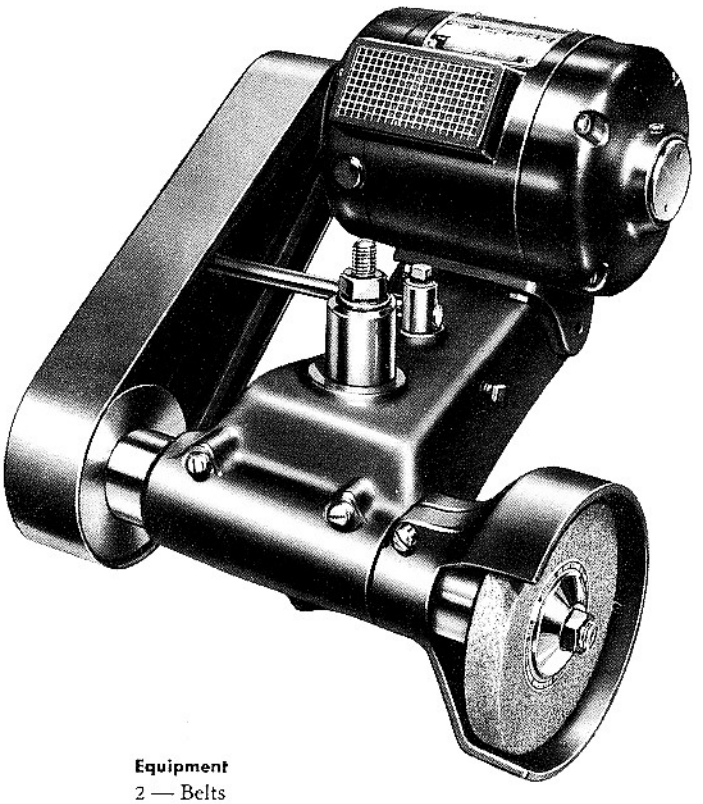
TN-6 Same as TN-1 5/8 but for internal grinding down to 9/16" dia. and 6" deep. Maximum recommended speed 15,000 RPM.

Insert type quill supplied less spindles. Select spindles you need. Spindles interchangeable, with tapered shanks and seated by integral thread at inner end. Weight and cost of complete equipment is reduced and change from one type of work to another is simplified. Insert spindles for the 5T-200 and 7T-200 (for Series 7 and 77 grinders) are interchangeable.

DUMORE®

TOOL POST GRINDERS

series 7



This Dumore Grinder has a wide application range for medium to heavy-duty internal and external work. Equipped with a ¾ hp Dumore universal motor. Heavier frame and larger quills give you strength and power to handle larger grinding work. Spindle speeds from 4200 to 29,300 rpm . . . 10 interchangeable quills . . . maximum external wheel capacity 5" diameter . . . internal minimum diameters from ⅛" at shallow depths to 2⅛" at 18¾" depth. Automatic belt tension . . . mounting post and T-bolt mounting . . . large base contact area for maximum rigidity. All quills furnished with water slingers for wet grinding. Also available with special oiling system for vertical operation.

SPECIFICATIONS

Motor — ¾ hp, series universal, filtered fan-cooled ventilation; selective fit ball bearings.

Quills — Interchangeable type; 4,200 to 29,300 rpm. Grinding wheel capacity — ½" to 5" dia. Internal grinding capacity: see quill specifications below and page 20. All quills have selective fit ball bearings.

Mounting — Tee-bolt with automatic belt adjustment.

Weights — Shipping wt. less quill 69 lbs. Net wt. 37 lbs.

Equipment

2 — Belts
6 — Individually balanced pulleys
1 — Belt guard
1 — Tee-Bolt
1 — Cat. No. 5-110 diamond wheel dresser
1 — 5" wheel guard
1 — 3-oz. can Dumore Hi-Speed Bearing Oil
1 — Steel carrying case

INTERCHANGEABLE QUILLS AND SPINDLES FOR SERIES 7 AND 77

Select Grinder by Model No.

7-011 Series 7 grinder, complete with motor and equipment but less quills, 115V, AC or DC.

7-012 Same as 7-011 but for 230V, AC or DC.

7-021 Series 7 grinder complete with motor and equipment and with one each 7X-250 and 7N-202 quills, 115V, AC or DC.

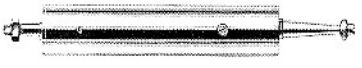
7-022 Same as 7-021 but for 230V.

EXTERNAL TYPE

7X-250 TWO-BEARING EXTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose balanced wheels (4" and 5" dia.). Handles wheels to 5" dia. Maximum recommended speed 15,000 RPM.

77X-250 For Series 77 grinders only. 7X-250 quill, but supplied with an additional wheel — 6" dia.

TWO-BEARING INTERNAL TYPE



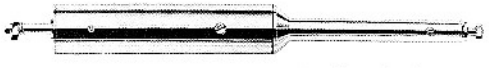
7N-202 TWO-BEARING INTERNAL TYPE QUILL — complete with four balanced wheel collars and three general purpose wheels. For internal grinding down to ¾" dia. and 2" deep. Maximum recommended speed 32,500 RPM.

7N-203 TWO-BEARING INTERNAL TYPE QUILL — complete with four balanced wheel collars and two general purpose wheels. For internal grinding down to ¾" dia. and 3" deep. Maximum recommended speed 25,000 RPM.

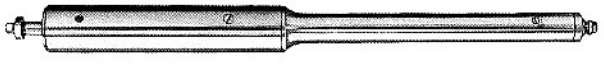
Ten quick-change quills give you wide work range . . . you can make initial purchase at minimum cost . . . then add quills as specific applications arise. Recommended initial equipment is grinder for your shop voltage, plus 7X-250 quill which gives you complete external grinding set-up and 7N-202 quill which handles internal grinding down to ¾" dia. and 2" deep. Alternate recommendation for initial equipment is grinder with 7T-200 insert type quill which gives you complete external set-up, internal set-up for holes down to ⅛" diameter and internal set-ups for grinding down to 9/16" dia. up to 6" deep.

7N-205 TWO-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose wheels. For internal grinding down to ¾" dia. and 5" deep. Maximum recommended speed 15,000 RPM.

THREE-BEARING INTERNAL TYPE

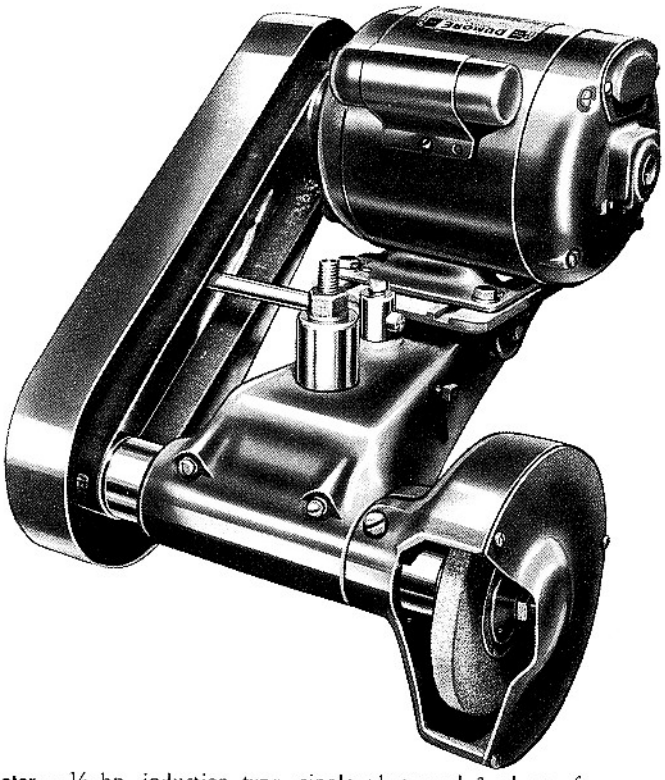


7N-306 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose wheels. For internal grinding down to ⅞" dia. and 6¼" deep. Maximum recommended speed 18,000 RPM.



7N-310 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose balanced wheels. For internal grinding down to 1 3/16" dia. and 10⅜" deep. Maximum recommended speed 15,000 RPM.

Note: Series 77 quills are identical to, and interchangeable with, Series 7 quills.



TOOL POST GRINDERS®

series **77**

The Series 77 Dumore Precision Grinder is recommended where most of the work is external or heavy internal grinding and for continuous production service. Powered with a ½ hp constant speed induction motor for maximum output regardless of load, it is the ideal tool for full-shift operation and where considerable stock removal is required. Spindle speeds from 3,400 to 13,800 rpm. Ten interchangeable quills. Six inch external wheel capacity . . . internal maximum diameters from ¾" at shallow depths to 2⅛" at 18¾" depth. All quills equipped with water slingers for wet as well as dry grinding or with special oiling system for vertical operation, if desired.

Motor — ½ hp, induction type, single phase and 3 phase; fan-cooled ventilation, selective fit ball bearings.

Quills — Interchangeable type; 3400 to 13,800 rpm. Grinding wheel capacity — ¾" to 6" dia. Internal grinding capacity: see quill specifications below and page 20. All quills have selective fit ball bearings.

Mounting — Tee bolt with manual belt adjustment.

Weights — Shipping wt. less quill 85 lbs. Net wt. 58 lbs.

SPECIFICATIONS

Equipment

2 — belts
8 — individually balanced pulleys
1 — belt guard
1 — Tee-Bolt. 3" x 2" x 7/16" thick
1 — Cat. No. 12-120 diamond wheel dresser
1 — 6" wheel guard
1 — 3-oz. can Dumore Hi-Speed Bearing Oil

Ten quick-change quills give you wide work range . . . you can make initial purchase at minimum cost . . . then add quills as specific applications arise. Recommended initial equipment is grinder for your shop voltage, plus 77X-250 quill which gives you complete external grinding set-up.

7N-305 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose balanced wheels. For internal grinding down to 1⅝" dia. and 5⅜" deep or 8" deep for 2⅛" dia. and larger. Maximum recommended speed 15,000 RPM.

7N-309 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose balanced wheels. For internal grinding down to 1⅝" dia. and 9⅜" deep or 12" deep for 2⅛" dia. and larger. Maximum recommended speed 15,000 RPM.

7N-315 THREE-BEARING INTERNAL TYPE QUILL — complete with two balanced wheel collars and two general purpose balanced wheels. For internal grinding down to 1⅝" dia. and 15⅜" deep or 18" deep for 2⅛" dia. or larger. Maximum recommended speed 15,000 RPM.

INSERT SPINDLE TYPE

The insert type quill is supplied less insert spindles. Select the insert spindles for your jobs. Interchangeable members have tapered shanks and are seated by an integral thread at the inner end. This type quill reduces weight and cost of complete equipment and simplifies changing from one type of work to another.

Insert spindles for the 7T-200 and 5T-200 (for Series 5 grinders) are interchangeable. See Page 9.

77-011 Complete with motor and equipment, less quill, 110V, 1 phase.

77-012 Same as 77-011 but for 220V, single phase.

77-022 Same as 77-011 but for 220V, three phase.

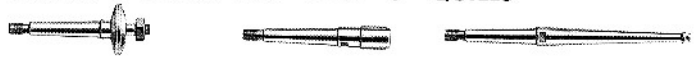
77-031 Same as 77-011, but with one 77X-250 quill.

77-032 Same as 77-031 but for 220V, single phase.

77-042 Same as 77-031 but for 220V, three phase.

7T-200 TWO-BEARING INSERT SPINDLE TYPE QUILL — less inserts and collars. Grinding capacity determined by insert spindle.

INSERT SPINDLES FOR TYPE "T" QUILLS



TX EXTERNAL TYPE INSERT SPINDLE — complete with two balanced wheel collars and three general purpose balanced wheels. For external grinding with wheels up to 5" dia. Maximum recommended speed 15,000 RPM.

TC MOUNTED-WHEEL TYPE INSERT SPINDLE — complete with chuck, one each ⅛" and ¼" precision collet and four assorted mounted wheels. For internal grinding small holes with mounted wheels. Maximum recommended speed 42,500 RPM.

TN-1⅝ INTERNAL TYPE INSERT SPINDLE — complete with two balanced wheel collars and three general purpose wheels. For internal grinding down to 9/16" dia. and 1⅝" deep. Maximum recommended speed 32,500 RPM.

TN-3 Same as TN-1⅝ but for internal grinding down to 9/16" dia. and 3" deep. Maximum recommended speed 25,000 RPM. Two collars and two wheels furnished.

TN-4 Same as TN-1⅝ but for internal grinding down to 9/16" dia. and 4" deep. Maximum recommended speed 15,000 RPM. One collar and two wheels furnished.

TN-5 Same as TN-1⅝ but for internal grinding down to 9/16" dia. and 5" deep. Maximum recommended speed 15,000 RPM. One collar and two wheels furnished.

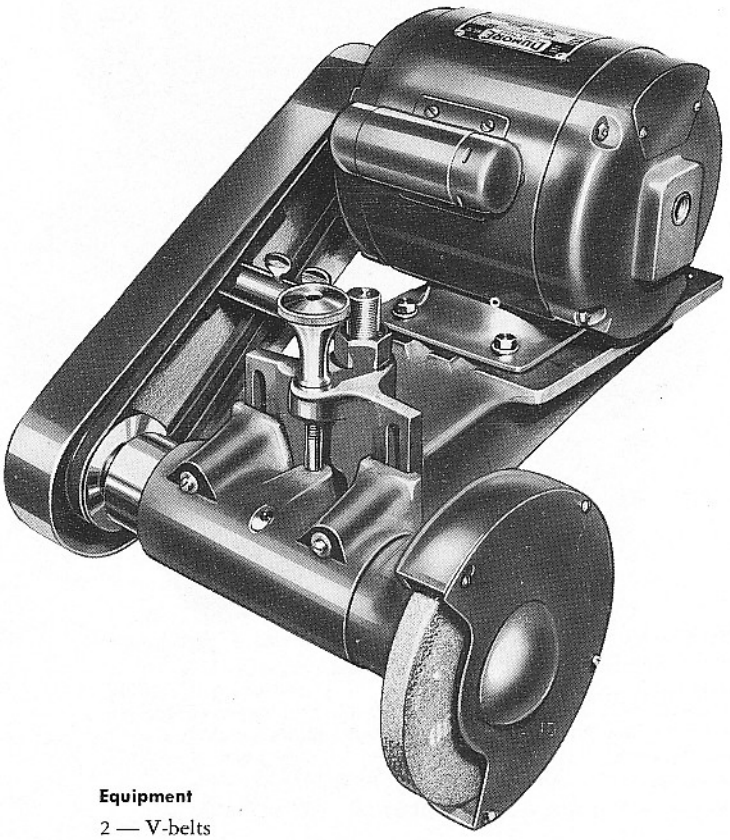
TN-6 Same as TN-1⅝ but for internal grinding down to 9/16" dia. and 6" deep. Maximum recommended speed 15,000 RPM. One collar and two wheels furnished.

DUMORE PRECISION TOOLS

TOOL POST GRINDERS

series 12

This Dumore precision grinder is recommended for large and heavy work — internal or external. It is equipped with a 1 hp capacitor-start induction motor operating at constant speed of 3,450 rpm. Big, rugged frame. Spindle speeds from 2,800 to 7,750 to correctly swing 3" to 8" wheels. Vertical feed screw quickly centers quill with work. One external and 3 internal quills available. Minimum internal grinding diameter 2⅜" to depth of 24". All quills equipped with slingers for wet as well as dry grinding. Quills operate vertically without special oilers. Two V-belts drive quill at full rated power. T-bolt mount, large base contact area, and close mounting of quill to frame assure rigid, vibrationless operation under heaviest loads.



SPECIFICATIONS

Motor — 1 hp, induction type, single phase and 3 phase; totally enclosed; selective fit ball bearings.

Quills — Interchangeable type; 2800 to 7750 rpm; grinding wheel capacity — 3" to 8" dia. Internal grinding capacity: see quill specifications below and page 20. All quills have selective fit ball bearings.

Mounting — Tee bolt with manual belt adjustment.

Weights — Shipping wt. less quill 165 lbs. Net wt. (operating) 142 lbs.

Select grinder by Model No.

12-011 Series 12 grinder with motor and equipment but less quills, 110V, single phase, AC.

12-012 Same as 12-011 but for 220V, single phase.

Equipment

2 — V-belts
5 — Individually balanced pulleys
1 — Belt-guard
1 — Tee-Bolt
1 — Cat. No. 12-120 Diamond Wheel Dresser
1 — 8" Wheel guard

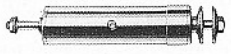
12-022 Same as 12-011 but for 220V, three phase.
12-024 Same as 12-011 but for 440V, three phase.
12-032 Same as 12-011 but for 220V, DC.
Other voltages available on special order.

QUILLS

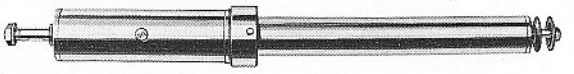
Four quick-change quills available to give complete work range for external and internal grinding, milling and like operations.

Standard quills are designed for maximum operating speed of 8,000 RPM.

TWO-BEARING EXTERNAL TYPE

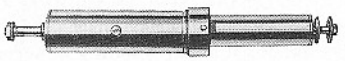


12X-250 — complete with 2 balanced wheel collars and one general-purpose balanced wheel (8" dia.).

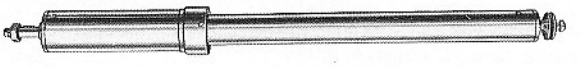


12N-316 — complete with 2 balanced wheel collars and 2 general-purpose balanced wheels. Grinds to depth of 16".

THREE-BEARING INTERNAL TYPE



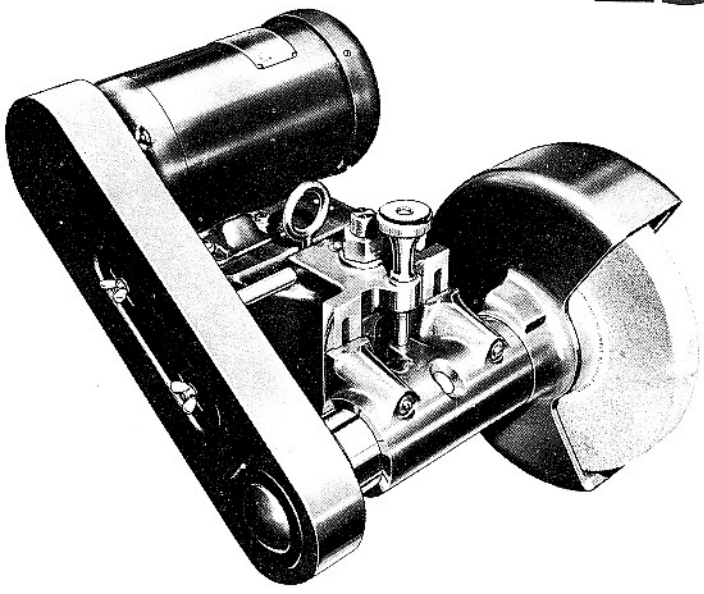
12N-308 — complete with 2 balanced wheel collars and 2 general-purpose balanced wheels. Grinds to depth of 8".



12N-324 — complete with 2 balanced wheel collars and 2 general-purpose balanced wheels. Grinds to depth of 24".

series **25**

TOOL POST GRINDERS



The Series 25 Dumore precision grinder is recommended for heavy external grinding on lathes 20″ or larger, planers, vertical boring mills and other large machine tools. It comes furnished with a 3 hp, 3-phase induction type motor operating at a constant speed of 3450 rpm. Swings large 12″ x 1½″ wheel at 1750 rpm. Efficiently hogs away metal or finish grinds. Maximum recommended spindle speed 4000 rpm. Rugged, cast iron frame assures rigid, vibration-free performance. Vertical feed screw with 1⅝″ adjustment range quickly centers wheel to work. "T" bolt mounted on large base contact area.

Quill equipped with grease-lubricated precision Timken roller bearing which, at 1750 rpm, have a radial capacity of 955 lbs. and a thrust capacity of 655 lbs. Quill machined from solid bar stock. Operates in any position without special oilers.

(Both quill and motor can be turned end for end for back of lathe mounting. Motor wires can be changed for correct wheel rotation.)

SPECIFICATIONS

Motor — 3 hp, induction type, 3-phase, fan cooled, open drip-proof construction, grease-sealed bearings, magnetic starter and over-load protector.

Quill — External only. Wheel capacity 12″ x 1½″ x 1¼″, speed 1750 rpm. Max. spindle speed 4000 rpm. For vertical and horizontal operation. Timken tapered roller bearing grease lubricated. At 1750 rpm, bearings have a radial capacity of 955 lbs. and a thrust capacity of 655 lbs.

Mounting — Tee bolt.

Mounting Dimensions — Center line of spindle to base adjustable for 2⅛″ min. to $3\frac{27}{32}$″ max. Center line of spindle to center line of mounting post $3\frac{37}{64}$″.

Weight — Operating weight 176 lbs.

Equipment

2 — V Belts
2 — Individually balanced pulleys
1 — Belt guard
1 — Tee-Bolt
1 — Cat. No. 12-120 Diamond Wheel Dresser
1 — 12″ Wheel guard

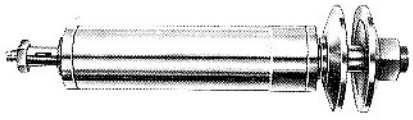
Select grinder by Model No.

25-022 Series 25 grinder, less quill, 220V, 3-phase, 50/60 cycle, AC only.

25-024 Series 25 grinder, less quill, 440V, 3-phase, 50/60 cycle, AC only.

QUILL

Available for external grinding only. Furnished with precision grease-lubricated Timken roller bearings. Heavy spindle construction. At 1750 rpm, bearings have a radial capacity of 955 lbs. and a thrust capacity of 655 lbs. Top recommended speed 4000 rpm. Operates in any position without special oilers.

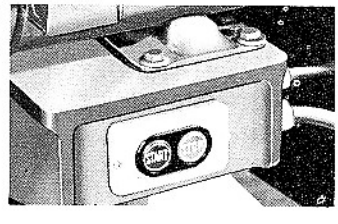


25X-250 — Complete with 2 balanced wheel collars and one general purpose grinding wheel 12″ x 1½″. Quill dimensions — Length, $19\frac{1}{16}$″. Diameter, 2.9999″.

EXTRA ELECTRICAL FEATURES

Built-in Motor Control Switch, for convenience and operator safety, easily accessible.

Built-in Magnetic Starter and Overload Protector. Operates on thermal principle. Automatically cuts current when motor is too heavily overloaded To re-set, press button below grinder, then "start" button on start-stop station.



DUMORE PRECISION TOOLS

TOOL POST GRINDERS

TABLE OF TOOL POST GRINDER WHEEL SIZES AND NO LOAD SPEEDS

Wheel Diameter	Pheripheral Speeds in Ft. per Min.	Spindle			Motor			Ratio 1 to
		Pulley No.	Pulley Diameter	RPM	Pulley No.	Pulley Diameter	RPM	
No. 5 GRINDER								
⅛ to ½	5560	1	2 9/32	42500	4	3 1/16	12500	3.38
⅝ ¾	6350	1	2 9/32	32500	3	2 1/4	13000	2.48
1 1⅛	5600	2	1 9/32	14600	2	1 9/32	14600	1.00
1¼ 2¾	6200	3	2 1/4	8600	2	1 9/32	15000	.57
3 3½	5900	4	3 1/16	6500	2	1 9/32	15400	.42
4 5	6010	4	3 1/16	4600	1	2 9/32	15500	.296
No. 7 GRINDER								
⅝ to ¾	5750	2	1½	29300	6	4	11000	2.66
1	6000	1	1	23000	2	1½	15200	1.5
2	6350	3	2	12000	2	1½	16200	.75
2½ 3	6500	5	3	8100	2	1½	16500	.5
3½ 3¾	6200	4	2⅝	6300	1	1	16500	.38
4	5650	5	3	5500	1	1	16500	.333
5	5500	6	4	4200	1	1	16800	.25
No. 77 GRINDER								
¾ to 1½	5400	1	1	13800	6	4	3450	4.00
1¾ 2	5450	1	1	10350	5	3	3450	
2¼ 2½	5250	2	1½	8000	7	3 15/32	3450	
3 3¼	5860	2	1½	6900	5	3	3450	
3½ 4	5450	3	2	5200	5	3	3450	
4¼ 5	5950	3	2	4550	4	2⅝	3450	
5¼ 6	5400	5	3	3450	5	3	3450	
No. 12 GRINDER 0 to 60 cycles								
3	6060	1	2 1/16	7750	6	4⅝	3450	2.24
4 to 5	5550	2	3	4250	5	3 1/16	3450	1.23
6	5950	3	3 3/16	3800	4	3½	3450	1.00
7 8	5860	5	3 11/16	2800	2	3	3450	.814
No. 44 GRINDER								
⅛ to ½	5050	1	⅞	38500	5	3	11200	3.42
⅝ ¾	5320	2	1⅛	27700	5	3	10400	2.67
⅞ 1	5500	2	1⅛	21000	4	2⅛	11200	1.89
1⅛ 1¼	5230	3	1 9/16	15900	4	2⅛	11700	1.36
1⅜ 2	4650	4	2⅛	8750	3	1 9/16	11900	.735
2½ 3	5200	4	2⅛	6600	2	1⅛	12400	.53
No. 11 GRINDER								
⅛ to ¾	5900	1	1 5/16	30000	2	2 3/16	13000	2.33
2	3600	2	2 3/16	6950	1	1 5/16	16000	.428
No. 14 GRINDER								
⅛ to 1	5900		¾	22500		1¼	13500	1.66
1⅛ 2	5250		1¼	10000		¾	16000	.6
No. 25 GRINDER 12	5500	7	4.825	1750	8	2.57	3450	1.97

All speeds are calculated at maximum diameter

INTEGRAL QUILL MODELS

TOOL POST GRINDERS

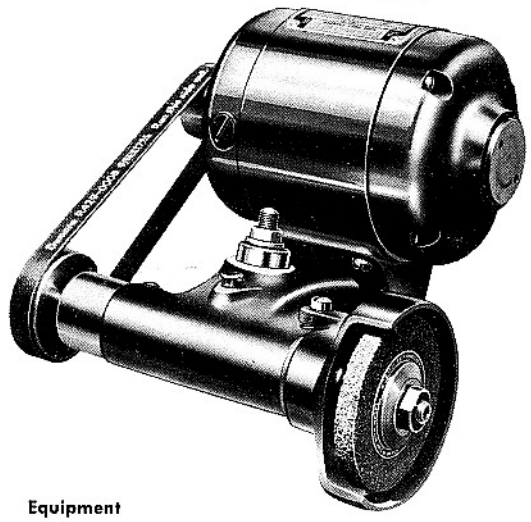
series 44

Recommended for tool-room, small-parts, maintenance and small-lathe use.

The ¼ hp Series 44 offers precision grinding to .0001" at a cost that the smallest shop can afford. Universal motor . . . integral quill . . . speeds from 6,600 to 38,500 rpm. Swings 3" diameter wheel for external work . . . handles internal work down to ⅛" diameter with sleeve chuck and mounted wheels . . . 2" arbor extension for deeper internal grinds. Can be used on lathes down to 8" swing.

44-011 Series 44 grinder complete with motor, built-in spindle and equipment, 115V, AC or DC.

44-012 Same as 44-011 but for 230V, AC or DC.



SPECIFICATIONS

Motor
Type - - - - - Series Universal
Horsepower (full load) - - - ¼
Ventilation - - - - Forced Air
Bearings - - Ball — Selective Fit

Quill
Type - - - - - - - Integral
Spindle Speed Range - 6,600 to 38,500
Grinding Wheel Capacity - ⅛" to 3"
Internal Grinding Capacity - -
3" deep at ¾" dia.; 1" deep at ⅛" dia.
Bearings - - Ball — Selective Fit

Mounting
Type - - - - - - - Tee-Bolt
Dimensions —
Center line of spindle to base - $2\frac{5}{32}$"
Center line of spindle to center line of mounting post - - $1\frac{3}{16}$"
Belt Adjustment - - - Automatic

Weights
Shipping Weight - - - 25¾ lbs.
Net Weight (operating) - 16½ lbs.

Equipment

1 — Belt
5 — Individually balanced pulleys
1 — Tee-Bolt
1 — Cat. No. 5-110 Diamond Wheel Dresser
1 — 3" Wheel Guard
1 — 3 oz. can Dumore Hi-Speed Bearing Oil
3 — Mounted Wheels
3 — General Purpose Balanced Wheels
1 — Steel Carrying Case
1 — Extension Arbor
2 — Wheel Collars
1 — Chuck Assembly (⅛" capacity)

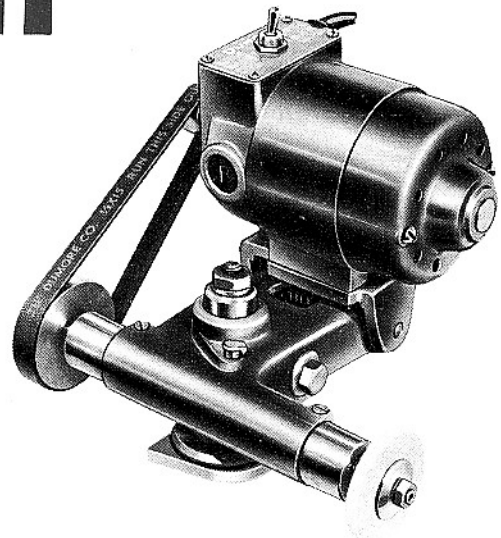
series 11

Recommended for small-parts maintenance and for use on small lathes.

Accurate to .0001", the ⅓ hp Series 11 transforms your smallest tool-room or bench lathe into a precision grinder at minimum cost. Universal motor . . . integral quill . . . two speeds — 6,950 and 30,000 rpm. Two-inch external wheel capacity . . . sleeve chuck for mounted wheels gives ½" minimum internal capacity at 2½" depth . . . smaller internal diameters to 1" depth.

11-011 Series 11 grinder complete with motor, built-in spindle and equipment, 115V, AC or DC.

11-012 Same as 11-011 but for 230V, AC or DC.



SPECIFICATIONS

Motor
Type - - - - - Series Universal
Horsepower (full load) - - - ⅓
Ventilation - - - - Forced Air
Bearings - - Ball — Selective Fit

Quill
Type - - - - - - - Integral
Spindle Speed Range - 6,950 and 30,000
Grinding Wheel Capacity - ⅛" to 2"
Internal Grinding Capacity - 2½" deep at ½" dia.; 1" deep at ½" dia.
Bearings - - Ball — Selective Fit

Mounting
Type - - - - - - - Tee-Bolt
Dimensions —
Center line of spindle to base - $2\frac{1}{32}$"
Center line of spindle to center line of mounting post - - - 1"
Belt Adjustment - - - Automatic

Weights
Shipping Weight - - - 22 lbs.
Net Weight (operating) - - 11 lbs.

Equipment

1 — Belt
2 — Individually balanced pulleys
1 — Tee-Bolt
1 — 3-oz. can Dumore Hi-Speed Bearing Oil
3 — Mounted Wheels
2 — General-Purpose Balanced Wheels
1 — Steel Carrying Case
2 — Wheel Collars
1 — Chuck Assembly (⅛" capacity)

TOOL POST

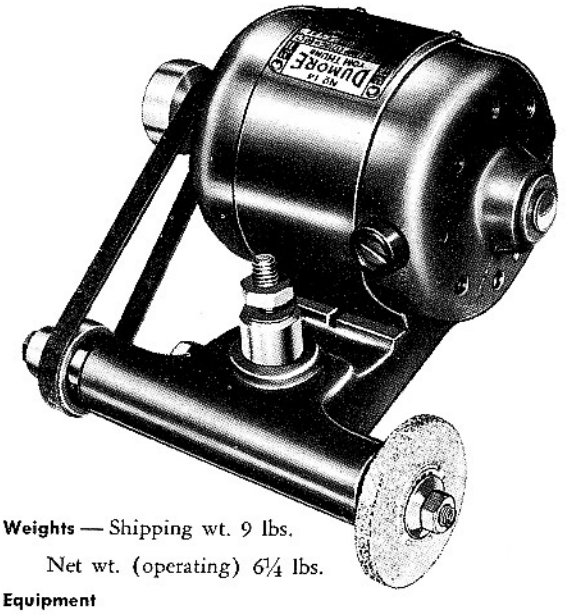
GRINDERS

series 14

Recommended for odd jobs, small precision work, and for school and home shops.

Small size and low cost are inherent in the Series 14. It is accurate to .0001" and is a very popular grinder for small tool-room lathes, as well as for school or home shops. 1/14 hp universal motor . . . two speeds — 10,000 and 22,500 rpm. Swings wheels to 2" diameter for external work . . . interchangeable chuck takes 1/8" shank-mounted wheels for internal grinding.

14-011 Series 14 grinder complete with motor, built-in spindle, external equipment and internal equipment, with carrying case, for 115V, AC or DC.
14-012 Same as 14-011 but for 230V, AC or DC.
14-021 Same as 14-011 but less carrying case, 115V, AC or DC.
14-022 Same as 14-021 but for 230V, AC or DC.
14-031 Same as 14-011 but less carrying case and internal equipment, 115V, AC or DC.
14-032 Same as 14-031 but for 230V, AC or DC.



Weights — Shipping wt. 9 lbs.
Net wt. (operating) 6¼ lbs.

Equipment
1 — Belt
2 — Individually balanced pulleys
1 — Tee-Bolt
1 — 3-oz. can Dumore Hi-Speed Bearing Oil
3 — Mounted Wheels
1 — General-Purpose Balanced Wheel
1 — Steel Carrying Case (optional)
2 — Wheel Collars
1 — Chuck Assembly (1/8" capacity) (optional)

SPECIFICATIONS

Motor — 1/14 hp, series universal, fan cooled ventilation; ball bearings.
Quills — Integral type, 10,000 and 22,500 rpm; grinding wheel capacity — 1/8" to 2" dia. Internal grinding capacity — Min. dia.: 1/2"; Max. depth: 2¼". All quills have selective fit ball bearings.
Mounting — Tee bolt with manual belt adjustment.

series 18

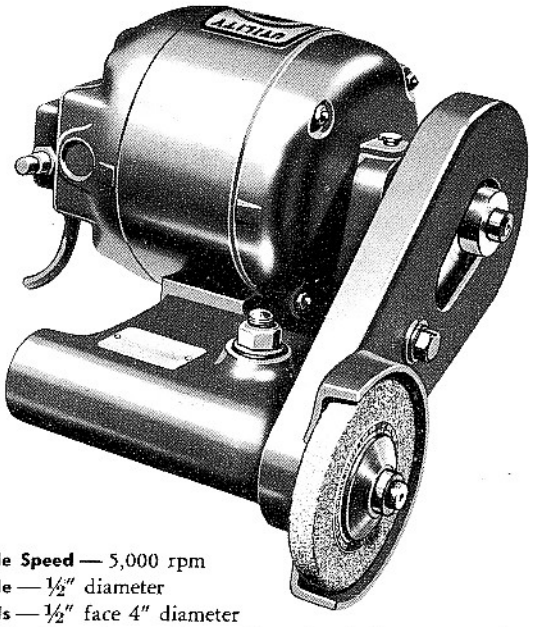
Use it as a Lathe Grinder, Bench Grinder, Polisher-Buffer, Wire Brusher

A versatile, Utility Grinder that converts your 9" to 13" lathe to a precision external grinding machine. Bench or vise mounted, it serves as off-hand grinder, polisher, wire brusher or buffer.

Does precision work — down to .0002" accuracy. It's a natural for machine shops, garages, repair, welding and metalizing shops, general shops and hobbyists.

Light and portable — can quickly be moved from one job to another. It can't be beat for secondary operations like burring castings, cleaning welds, wire brushing, polishing.

18-011 UTILITY GRINDER
Complete with motor, belt-wheel guard and one 4" x 1/2" Dumore balanced, general-purpose grinding wheel — for 110 volts, AC, 60 cycle, single phase.
OPTIONAL EQUIPMENT:
No. 5-110 Diamond Wheel Dresser complete.



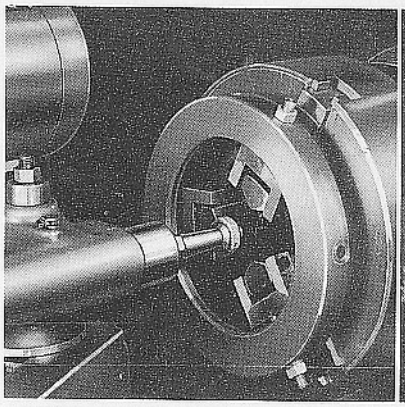
Spindle Speed — 5,000 rpm
Spindle — 1/2" diameter
Wheels — 1/2" face 4" diameter
Mounting Dimensions — Center line of spindle to center line of mounting post 1.250"
Center line of spindle to base of frame .750 (Fits lathes with 9" to 13" swing)
Operating Weight — 33 lbs.
Shipping Weight — 50 lbs.

SPECIFICATIONS

Motor — 1/4 hp, 1725 rpm, single-phase induction type
Switch — mounted in motor housing

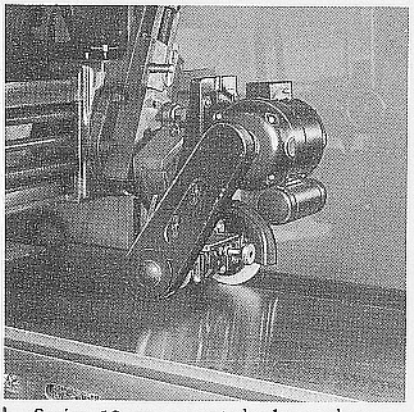
TOOL POST GRINDERS®

DUMORES ARE TOOL-ROOM STANDBYS

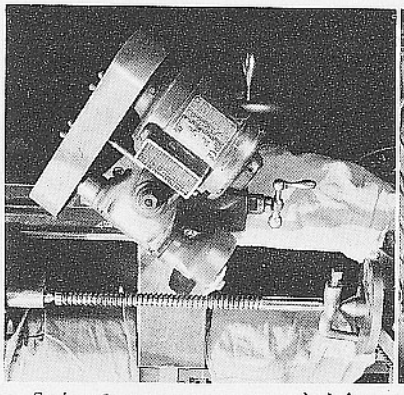


Worn chuck jaws are easily and quickly trued using this Series 44 setup with a yoke-ring fixture.

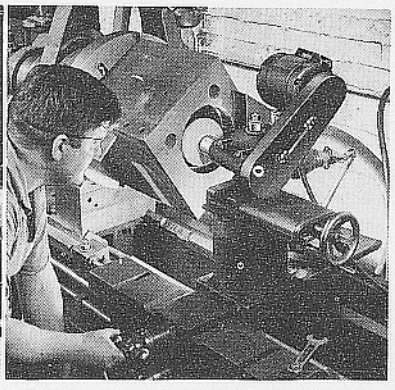
Small lathe and Series 14 handle all miller-cutter sharpening for this machine-tool maker.



Series 12 on mounted planer does surface grinding. Refinishing lathe ways is common surface job.

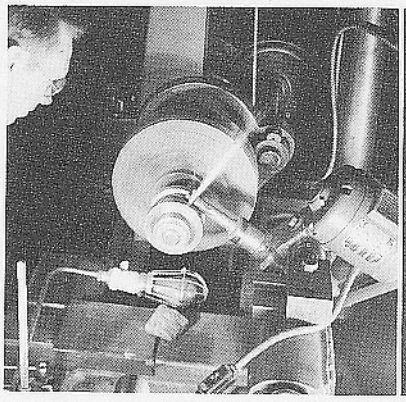


Series 5 setup recommended by broach manufacturer for resharpening broaches.

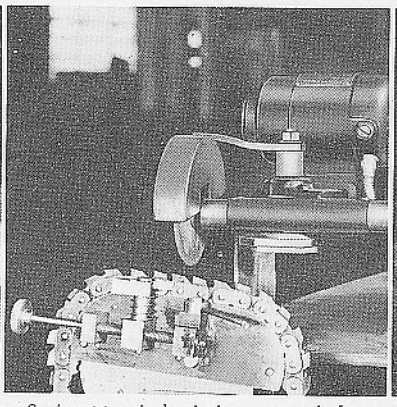


Series 5 gives plastic molds microfinish necessary to insure smooth finish on plastic.

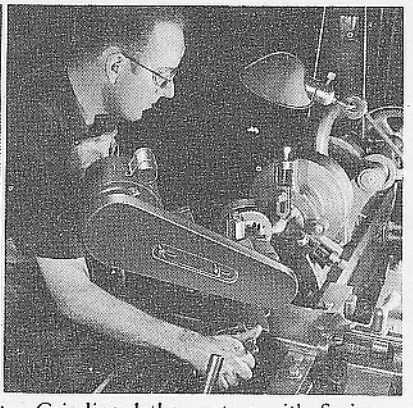
Down go costs in your tool room with a Dumore to handle one-time jobs or small runs requiring precision machining. Quick setup gets it on and off the job fast. It converts a lathe to a cylindrical grinder . . . a shaper, planer or miller to a surface grinder . . . a standard grinder to a high-speed internal grinder. Add such advantages as .0001" accuracy, wide speed range (up to 42,500 rpm), a variety of quills for external and internal grinding to 24" depth, and you get a tool that has been a tool-room *must* for 35 years.



Tube and molding manufacturers depend on Dumore grinders to maintain roll accuracy.



Series 11 grinds chain-saw teeth for maker. Saw work gives steady volume to aggressive shops.



Grinding lathe centers with Series 77. Quick setup of Dumore grinder pays off in tool rooms.

PRECISION

QUILLS

PRECISION QUILLS

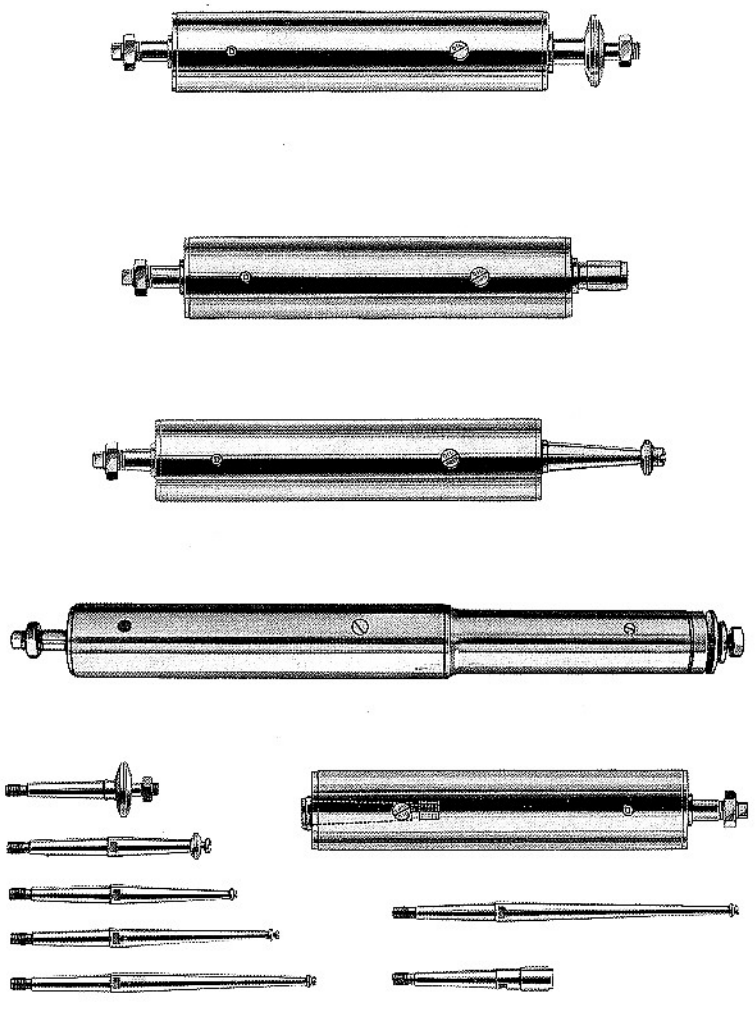
WHAT IS A QUILL?

A quill (frequently called a spindle) is a tubular housing equipped with precision bearings which carry a high-speed spindle. In this catalog, the word quill covers the entire assembly — tube, bearings, and spindle. The following information will help you to select the proper quill, whether for use with a Dumore tool or to be incorporated into your own design.

HOW IS IT USED?

The quill is the heart of the grinder and is used to transmit power through the spindle to a grinding wheel, drill, or milling cutter. There are five basic types of quills, each designed to satisfy the needs of specific types of grinding jobs. Use of the correct type quill on each job pays off in increased production, finer work, and longer quill life.

TYPES OF QUILLS



EXTERNAL

Handles all external grinding within limits of lathe or machine on which it is mounted. Also used for internal grinding in large-diameter, shallow holes and for surface grinding on shaper and planer. For Series 5, 7, 77, and 12 grinders.

MOUNTED WHEEL

Used for internal grinding of small holes, for high-speed production drilling, and for light burring. Furnished with chucks and interchangeable collets to accommodate ⅛" and ¼" mounted wheels and accessories. For Series 5 grinders only.

TWO-BEARING INTERNAL

Solid-spindle type quill used for internal grinding small holes up to 6" in depth. Extension and shaft are one-piece. Recommended for production use with Series 5, 7 and 77 grinders.

THREE-BEARING INTERNAL

A solid-spindle one-piece quill used for deep internal grinding. A third outboard-support bearing eliminates shaft whip caused by extensions longer than 6". For Series 5, 7, 77, and 12 grinders.

INSERT SPINDLE

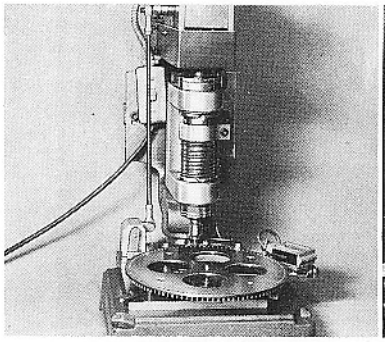
Has an internal tapered, threaded socket to receive various insert spindles for external and small internal grinding up to depths of 6". Interchangeable spindles in a single quill take the place of a complete set of quills; simplifies changing from one type of work to another. Insert spindles seat accurately in the quill. For Series 5, 7, and 77 grinders. Recommended for tool-room and multiple-use work.

HOW TO SELECT

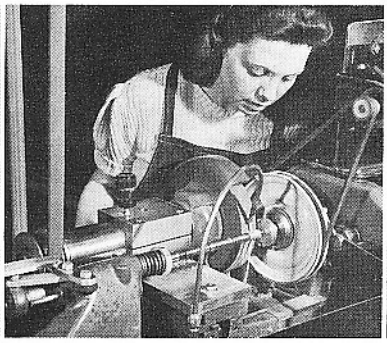
The type and size of work to be ground determines the proper quill to be used. The table on Page 20 gives complete dimensions and specifications on all Dumore quills. For internal work, use a three-bearing quill to insure maximum rigidity and eliminate vibration and chatter marks wherever possible. If size of the job limits the selection to a two-bearing quill, choose a quill with the shortest possible extension for best results.

PRECISION DUMORE QUILLS

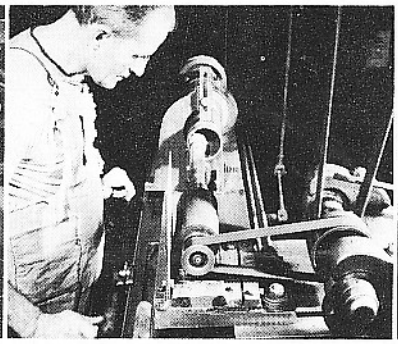
DUMORE QUILLS FOR SPECIAL SETUPS



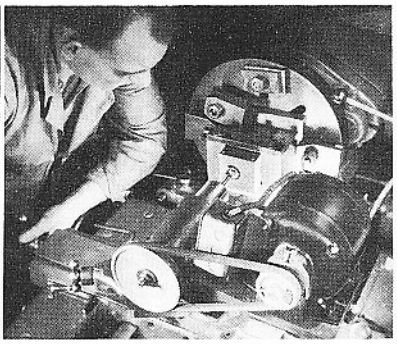
Dumore 7N-202 quill drills and mills ball pen points — gives big production increase to Kimberly Corp., Culver City.



General Gas & Electric Co., Kalamazoo, used belt-driven Z quill to grind several plunge cuts on small crankshaft.



To utilize an overhead belt drive, the Buda Company mounted Z-8 quill on lathe to grind I.D. of Diesel cylinder sleeves.



Chicago Impression Die & Mold mills threads in steel molds for castings with Dumore quill as miller work head.

THEY DO MORE FOR YOU . . . GRINDING, DRILLING AND MILLING AT MINIMUM COST

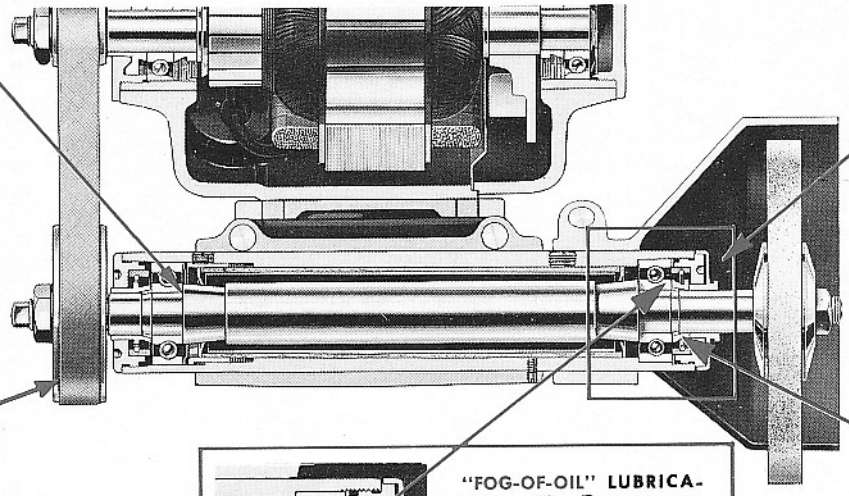
A Dumore Quill slashes excessive costs. This versatile tool can often help you avoid unnecessary investment in expensive machines . . . and its adaptability cuts actual operating costs in tool-room, maintenance, and production work.

You can do more for less with Dumore Quills — in three different ways. Use them with Dumore Grinders; their interchangeable design adapts one Dumore for dozens of different jobs. Use them as work heads in special set-ups; they enable you to build your own dependable production equipment at minimum cost. Use them on standard machines as replacement spindles, or as high-speed attachments.

Machined from solid bar stock

No tubing is used in the manufacture of Dumore quills. All housings are precision machined from solid bar stock. Every operation controlled to the closest tolerances. Internal pre-load spring assures free running spindles regardless of heat, speed or hours of use.

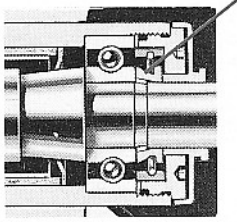
PRE-LOADING — Compensates for expansion of the quill shaft caused by heat. Permits bearing to run freely at high speeds with minimum amount of wear. Properly adjusted at factory. Needs no adjustment.



WATER SLINGER — Positively prevents any coolant or dust from entering the precision bearings while grinder is operating. This Dumore feature assures long, trouble-free quill performance.

PULLEYS — Accurately balanced for smooth and efficient power transmission, vibrationless quill operation and longer belt life — a necessity for close tolerance and high-finish grinding.

BEARINGS — Specially selected precision bearings used in Dumore high-speed quills are carefully inspected, fitted with utmost care and assembled to insure the most efficient performance for high-speed operation.



"FOG-OF-OIL" LUBRICATION — The Dumore patented quill lubricating system provides the exact lubricating condition for high spindle speeds . . . a continuous supply of the correct amount of oil to the bearings.

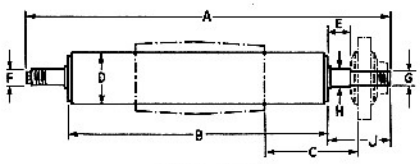
VERTICAL OPERATION — Standard Dumore quills may be used in the vertical position for very short periods. For continuous vertical operation they can be equipped with sight-feed oilers at extra cost.

DUMORE PRECISION TOOLS

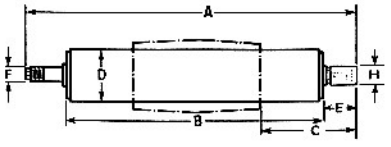
PRECISION

QUILLS

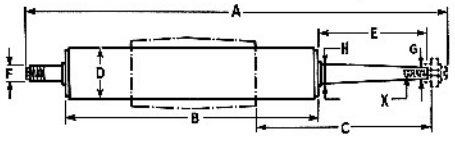
QUILL DIMENSIONS AND SPECIFICATIONS



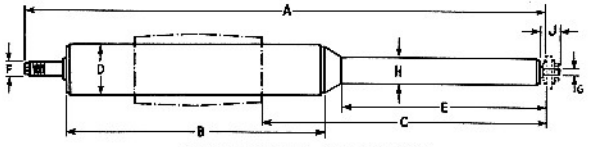
EXTERNAL



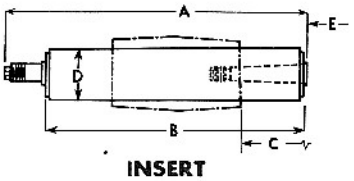
MOUNTED WHEEL



2-BEARING INTERNAL



3-BEARING INTERNAL



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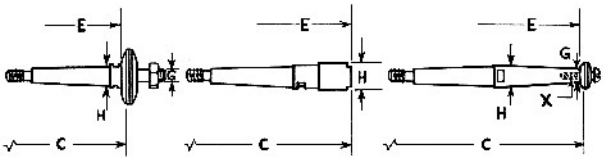
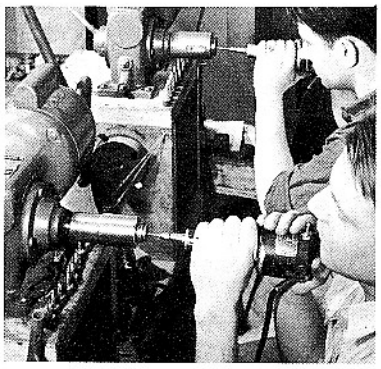


TYPE	New Catalog Number	Old Cat. No.	For Grinder Series	A	B	C	D	E	F	G	H	J	X	Maximum Recommended Speed*	Maximum Wheel Size	INTERNAL GRINDING CAPACITY			WEIGHTS	
																Minimum Diameter	Max. Grinding Depth: Holes Smaller Than Quill Diameter	Max. Grinding Depth: Holes Larger Than Quill Diameter	Net	Ship.
2-BRG. EXT.	5X-250	B	5	12 1/8	8 3/4	3 1/4	1.750	3/4	1/2-20RH	3/8-24RH	5/8	2	.....	15000	5	...	.....	.....	6 1/4	9 1/4
2-BRG. EXT.	5X-250R	BE	5	12 1/8	8 3/4	3 1/4	1.750	3/4	1/2-20LH	3/8-24LH	5/8	2	.....	15000	5	...	.....	.....	6 1/4	9 1/4
2-BRG. EXT.	7X-250	X	7	12 23/32	9	2 7/8	2.000	1/4	1/2-20RH	1/2-20RH	.669	1 7/8	.....	15000	5	...	.....	.....	8	10 1/2
2-BRG. EXT.	77X-250	X	77	12 23/32	9	2 7/8	2.000	1/4	1/2-20RH	1/2-20RH	.669	1 7/8	.....	15000	6	...	.....	.....	8	11 1/2
2-BRG. EXT.	12X-250	Z	12	17 1/8	11 11/16	2 13/16	3.000	3/8	3/4-20RH	3/4-24RH	1 5/16	2 1/16	.....	8000	8	...	.....	.....	23	35
2-BRG. EXT.	25X-250	...	25	19 1/16	11 13/16	3 3/16	2.999	7/16	1 3/4-20RH	1 1/4-18RH	....	4 5/16	.....	1750	12	...	.....	.....	...	...
MTD. WHEEL	5C-260	DC	5	11 3/32	8 3/4	3 15/32	1.750	1 1/8	1/2-20RH	COLLETS 1/8 & 1/4	4 7/64	....	.....	42500	1/8 & 1/4 SHANKS	1/8	.....	.....	5	7
MTD. WHEEL	5C-260R	DCE	5	11 3/32	8 3/4	3 15/32	1.750	1 1/8	1/2-20LH	COLLETS 1/8 & 1/4	4 7/64	....	.....	42500	1/8 & 1/4 SHANKS	1/8	.....	.....	5	7
2-BRG. INT.	5N-202	V	5	12 1/4	8 3/4	4 3/8	1.750	2 1/16	1/2-20RH	.368	5/8	....	1/4-28RH	32500	1 1/2	1 1/16	2 1/16	.....	4 1/2	6 1/2
2-BRG. INT.	5N-202R	VE	5	12 1/4	8 3/4	4 3/8	1.750	2 1/16	1/2-20LH	.368	5/8	....	1/4-32LH	32500	1 1/2	1 1/16	2 1/16	.....	4 1/2	6 1/2
2-BRG. INT.	5N-203	V3	5	13 1/4	8 3/4	5 3/8	1.750	3 1/8	1/2-20RH	.250	5/8	....	5-40RH	25000	1	1 1/16	3 1/8	.....	4 1/2	6 1/2
2-BRG. INT.	5N-205	V5	5	15 1/4	8 3/4	7 3/8	1.750	5 1/8	1/2-20RH	.250	5/8	....	5-40RH	15000	3/4	1 1/16	5 1/8	.....	4 1/2	6 1/2
2-BRG. INT.	7N-202	N	7 & 77	13	9	4 1/4	2.000	2 1/8	1/2-20RH	.500	1 1/16	....	1/4-28RH	32500	1 1/2	3/4	2	.....	6 1/2	8 1/2
2-BRG. INT.	7N-203	N3	7 & 77	14	9	5 1/4	2.000	3 1/8	1/2-20RH	.368	1 1/16	....	1/4-28RH	25000	1	3/4	3	.....	6 1/2	8 1/2
2-BRG. INT.	7N-205	N5	7 & 77	16	9	7 1/4	2.000	5 1/8	1/2-20RH	.250	1 1/16	....	5-40RH	15000	3/4	3/4	5	.....	6 1/2	8 1/2
3-BRG. INT.	5N-305	B8	5	17	8 3/4	8 3/16	1.750	5 3/16	1/2-20RH	3/8-24RH	1 1/2	1 13/64	.....	15000	2 1/2	1 5/8	5 7/32	8	9	12
3-BRG. INT.	5N-306	K6	5	17 1/4	8 3/4	9	1.750	6	1/2-20RH	1/4-32RH	3/4	5/8	.....	18000	1 1/4	7/8	6	.....	6 1/2	9
3-BRG. INT.	5N-309	B12	5	21	8 3/4	12 3/16	1.750	9 3/16	1/2-20RH	3/8-24RH	1 1/2	1 13/64	.....	15000	2 1/2	1 5/8	9 7/32	12	10	12 1/2
3-BRG. INT.	5N-310	F10	5	21 3/4	8 3/4	13 1/4	1.750	10 5/16	1/2-20RH	1/4-32RH	1 1/8	7/8	.....	15000	1 1/2	1 1/4	10 1/32	.....	7	9 1/4
3-BRG. INT	5N-315	B18	5	27	8 3/4	18 3/16	1.750	15 3/16	1/2-20RH	3/8-24RH	1 1/2	1 13/64	.....	15000	2 1/2	1 5/8	15 7/32	18	12	16
3-BRG. INT.	7N-305	X8	7 & 77	17 15/16	9	8 3/16	2.000	5 3/16	1/2-20RH	3/8-24RH	1 1/2	1 13/64	.....	15000	2 1/2	1 5/8	5 3/16	8	9	12
3-BRG. INT.	7N-306	L6	7 & 77	18	9	9	2.000	6 1/4	1/2-20RH	1/4-32RH	3/4	9/16	.....	18000	1 1/4	7/8	6 1/4	.....	7 1/4	9 1/2
3-BRG. INT.	7N-309	X12	7 & 77	21 13/16	9	12 3/16	2.000	9 3/16	1/2-20RH	3/8-24RH	1 1/2	1 13/64	.....	15000	2 1/2	1 5/8	9 3/8	12	10	15
3-BRG. INT.	7N-310	Y10	7 & 77	22 1/2	9	13 1/8	2.000	10 5/16	1/2-20RH	1/4-32RH	1 1/8	7/8	.....	15000	1 1/2	1 1/4	10 3/8	.....	8	10
3-BRG. INT.	7N-315	X18	7 & 77	27 13/16	9	18 3/16	2.000	15 3/16	1/2-20RH	3/8-24RH	1 1/2	1 13/64	.....	15000	2 1/2	1 5/8	15 3/8	18	12	16
3-BRG. INT.	12N-308	M8	12	24	12 1/16	10	3.000	8 1/2	3/4-24RH	1/2-20RH	2 1/4	1 51/64	.....	8000	5	2 3/8	8	8	26	37
3-BRG. INT.	12N-316	M16	12	32	12 1/16	18	3.000	16 1/2	3/4-24RH	1/2-20RH	2 1/4	1 51/64	.....	8000	5	2 3/8	16	16	30	42
3-BRG. INT.	12N-324	M24	12	40	12 1/16	26	3.000	24 1/2	3/4-24RH	1/2-20RH	2 1/4	1 51/64	.....	8000	5	2 3/8	24	24	37	52
INSERT SPINDLE	5T-200	T	5	10 21/64	8 3/4	....	1.750	....	1/2-20RH	.....	....	.....	.....	SEE INSERT SPINDLES					4 1/2	6 1/2
INSERT SPINDLE	7T-200	U	7 & 77	11 3/64	9	....	2.000	....	1/2-20RH	.....	....	.....	.....	SEE INSERT SPINDLES					6 1/4	8 1/4
INSERTS	TX	TUX	"T" Quills	.....	.....	3 5/32 & 3 1/16	.....	5/8	.....	3/8-24RH	.375	.....	.....	15000	5	.....	.....	.....	2	2 1/2
INSERTS	TN 1 5/8	TU 1 5/8	"T" Quills	.....	.....	4 23/32	.....	2 1/4	.....	.368	.563	.....	1/4-28RH	32500	1 1/2	9/16	2 1/4	.....	1/4	1/2
INSERTS	TN 3	TU 3	"T" Quills	.....	.....	6	.....	3 9/16	.....	.250	.563	.....	5-40RH	25000	1	9/16	3 9/16	.....	1/4	1/2
INSERTS	TN 4	TU 4	"T" Quills	.....	.....	7	.....	4 9/16	.....	.250	.563	.....	5-40RH	15000	1	9/16	4 9/16	.....	1/4	1/2
INSERTS	TN 5	TU 5	"T" Quills	.....	.....	8	.....	5 9/16	.....	.250	.563	.....	5-40RH	15000	1	9/16	5 9/16	.....	1/4	1/2
INSERTS	TN 6	TU 6	"T" Quills	.....	.....	9	.....	6 9/16	.....	.250	.563	.....	5-40RH	15000	1	9/16	6 9/16	.....	1/4	1/2
INSERTS	TC	TUC	"T" Quills	.....	.....	3 3/8	.....	1 9/16	.....	.....	.562	.....	.....	42500	1/8 & 1/4 SHANKS	1/8	.....	.....	1/4	1/2

HAND GRINDERS

JOB PROVED – OVER 100,000 IN USE



A DUMORE HAND GRINDER FOR EVERY JOB

Expert metalworkers everywhere standardize on Dumore hand grinders. They're *job proved* in over 100,000 industrial applications . . . where power-packed performance and perfect balance are appreciated. Easily adaptable to nearly every grinding job . . . from smoothing weld seams to cleaning castings and deburring finished parts. Made with powerful, continuous-duty rated Dumore-built motors, 1/20 to 1/4 hp. Every Dumore hand grinder is a precision tool, built to rigid tolerances and inspected to insure maintenance of well-known Dumore-quality standards. Armatures are *dynamically* balanced . . . ball bearings are especially selected and fitted.

BUILT BEST, PRICED RIGHT

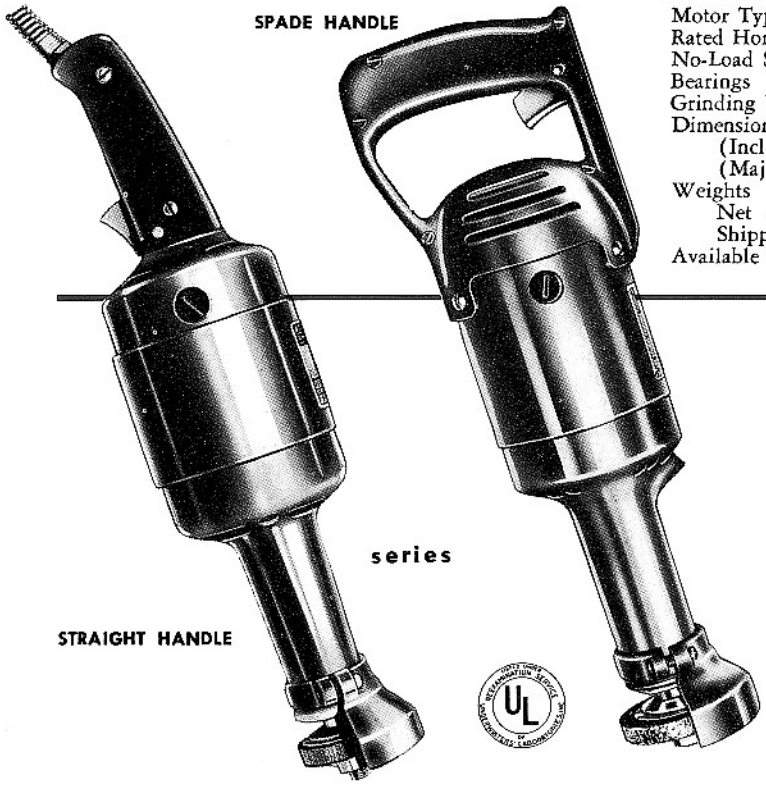
Lightweight, compact and balanced to minimize vibration. Ample power for continuous, high-production duty. Five sizes — 1/20 to 1/4 hp. Largest — permits wide range of heavy-duty grinding. Smallest — recommended for light industrial applications. Dumores are competitively priced, too. The extra performance, long life, and lower maintenance make them a better buy.

IT PAYS TO GET DUMORE

By standardizing on Dumore hand grinders, you get the following advantages:

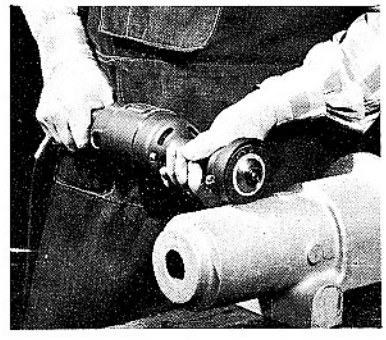
• best tool performance — ask any Dumore user • right tool for the job — wide performance range • longer tool life — quality construction pays off in extra work hours . . . lower costs • lower maintenance — proved by user cost records • parts and service facilities as near as your phone, because Dumore tools are distributed by leading mill supply houses all over the world • lower parts inventory — many hand grinder parts are interchangeable from model to model.

Why not look over your operations with an eye to mechanizing your tool-room and production operations with DUMORE hand grinders. You'll find they pay off in more work per hour at lower cost per piece.



SPECIFICATIONS

Motor Type	Universal
Rated Horsepower	1/4
No-Load Speed	15,500
Bearings	3 Ball
Grinding Wheels	1"—2 5/16"
Dimensions — Length	
(Incl. Chuck)	16 3/4"
(Major Diameter)	3 5/8"
Weights	
Net	7 lbs., 10 oz.
Shipping	9 lbs., 8 oz.
Available with these Chucks	1/4"



Recommended for heavy-duty grinding. 1/4 hp Dumore fan-cooled universal motor develops 15,500 rpm . . . swings 7/8" to 2 5/16" wheels. Extension arbor and 1/4" chuck permit wide range of work . . . both internal and external. Although powerful enough to handle the tough jobs, the Series 9 weighs only 7 1/2 lbs.

SPADE HANDLE

9-011 Series 9 Hand Grinder, 1/4" Std. Chuck and Wheels, 115V, AC or DC. (Extension Arbor Optional)

9-011R Same as 9-011, but for reversed operation, less Chuck and Wheels.

9-012 Same as 9-011, but for 230V, AC or DC.

9-012R Same as 9-011R, but for 230V, AC or DC.

U L approved 8 ft. cord with 3 prong grounding type plug.

STRAIGHT HANDLE

9-111 Series 9 Hand Grinder, 1/4" Std. Chuck, Wrenches and Wheels. (Extension Arbor Optional)

9-112 Same as 9-111 but for 230V, AC or DC.

U L approved 8 ft. cord with 3 prong grounding type plug.

DUMORE PRECISION TOOLS

HAND GRINDERS

series 35

Recommended for use with tungsten carbide burs, hi-speed steel cutters, or mounted wheels and points. ¼ hp Dumore universal motor idles at 35,000 rpm, handles wheels to 1" dia., burs to ⅜" dia. Rigid spindle support because ultra precision bearings are housed in steel inserts cast into frame. Force cooling . . . quick-change chuck.

35-011 Series 35 Hand Grinder with ⅛" Collet Chuck, Wrenches and cord, for 115V, AC or DC.

35-051 Same as 35-011, but with ¼" Collet Chuck.

U L approved 8 ft. cord with 3 prong grounding type plug.

SPECIFICATIONS

Motor Type	Universal
Rated Horsepower	¼
No-Load Speed	35,000
Bearings	Micro-precision ball
Wheel Capacity	up to 1" diameter
Dimensions — Length	
(Incl. Chuck)	10¾"
(Major Diameter)	2 7/16"
Weights —	
Net	3 lbs., 2 oz.
Shipping	4 lbs.

series SUPER 10

Recommended for tool and die work, pattern making, designing, model making, production bench grinding, filing, burring, etc. Positive spindle rigidity, because precision bearings run in steel inserts cast into grinder housing. Forced cooling — quick-change chucks. Your best buy in industrial handgrinders!

10-111 Super 10 Hand Grinder with ⅛" standard chuck, 115V, AC or DC.

10-112 Same as 10-111 but for 230V, AC or DC.

10-121 Super 10 Hand Grinder with 0-⅛" Jacobs chuck, 115V, AC or DC.

10-122 Same as 10-121 but for 230V, AC or DC.

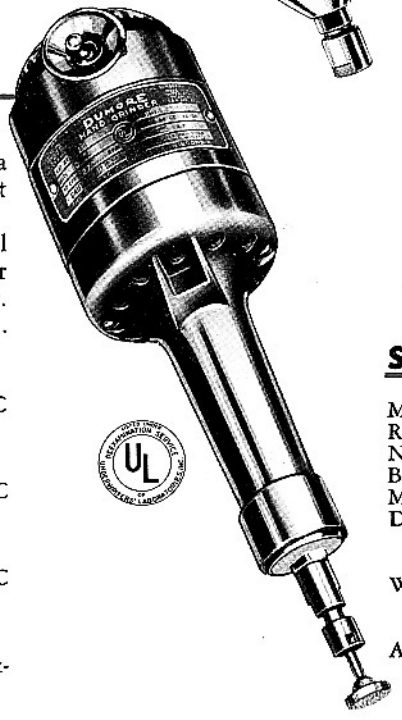
10-151 Super 10 Hand Grinder with ¼" standard chuck, 115V, AC or DC.

10-152 Same as 10-151, but for 230V, AC or DC.

U L approved 8 ft. cord with 3 prong grounding type plug.

SPECIFICATIONS

Motor Type	Universal
Rated Horsepower	1/10
No-Load Speed	22,000
Bearings	Precision ball, grease sealed
Mounted Wheels	up to 1" vitrified bond
Dimensions — Length	
(Incl. Chuck)	10¼"
(Major Diameter)	2 7/16"
Weights —	
Net	3 lbs.
Shipping	4 lbs.
Available with These Chucks	⅛", ¼", 0-⅛"



series 10

Recommended for both tool and die work where accuracy is a must and for shop and production bench work where full-shift operation is required.

1/10 hp Dumore universal motor idles at 22,000 rpm . . . will swing wheels for full-shift production work. Weighs under 3 lbs. yet has twice the power of the average hand grinder. Prematched two-bearing construction . . . forced cooling . . . quick-change chuck. A hog for work!

10-011 Series 10 Hand Grinder with ⅛" standard chuck, 115V, AC or DC.

10-012 Same as 10-011, but for 230V, AC or DC.

10-021 Series 10 Hand Grinder with 0-⅛" Jacobs chuck, 115V, AC or DC.

10-022 Same as 10-021, but for 230V, AC or DC.

10-051 Series 10 Hand Grinder with ¼" standard chuck, 115V, AC or DC.

10-052 Same as 10-051, but for 230V, AC or DC.

99-301 Accessory kit for 10 and 8 grinders. Box of 12 assorted mounted wheels. ⅛" shank.

U L approved 8 ft. cord with 3 prong grounding type plug.

SPECIFICATIONS

Motor Type	Universal
Rated Horsepower	1/10
No-Load Speed	22,000
Bearings	Ball
Mounted Wheels	up to 1" diameter
Dimensions — Length	
(Incl. Chuck)	9 23/32"
(Major Diameter)	2 11/16"
Weights —	
Net	3 lbs.
Shipping	3 lbs., 14 oz.
Available with These Chucks	⅛", ¼", 0-⅛"

Recommended for tool room and for lighter shop and production applications

Powered by 1/20 hp precision-built Dumore universal motor, the Series 8 swings up to 1" wheels . . . handles the same wide range of work as Series 10 at speeds up to 18,000. Universal application, plus quick-change chuck for all 1/8" shank tools and trouble-free performance have made the Series 8 a shop favorite.

8-011 Series 8 Hand Grinder with standard 1/8" chuck, 3-conductor cord, 2-prong plug for 115V, AC or DC.

8-012 Same as 8-011, but for 230V, AC or DC.

8-021 Series 8 Hand Grinder with 0-1/8" Jacobs chuck, 3-conductor cord, 2-prong plug for 115V, AC or DC.

8-022 Same as 8-021, but for 230V, AC or DC.

8-051 Series 8 Hand Grinder with 1/4" standard chuck, 3-conductor cord, 2-prong plug for 115V, AC or DC.

8-052 Same as 8-051, but for 230V, AC or DC.

U L approved 8 ft. cord with 3 prong grounding type plug.

series **8**

SPECIFICATIONS

Motor — 1/20 hp, universal, ball bearing type.
Mounted Wheel Capacity — 1" diameter.
Chucks — 1/8", 1/4", 0-1/8".
Dimensions — Length (including chuck)—9 1/32". Major dia. — 2 11/16".
Weights—net—2 lbs. 4 oz.; Shipping — 3 lbs.

Recommended for intermittent or light production applications where extreme accuracy is not essential

1/14 hp Dumore universal motor delivers 17,000 rpm. Has 1/4" chuck and two collet sleeves (1/8" and 3/32") to handle all sizes of mounted accessories. Sturdy sleeve bearing construction

Ideal for intermittent or light bench and finishing work where sustained output and heavy grinds are not a must.

3-011 Duplex grinder Standard Kit including 1/8" and 3/32" collets, wrenches, and 6 assorted accessories. For 115V, AC or DC.

3-012 Same as 3-011, but for 230V, AC or DC.

3-021 Duplex grinder DeLuxe Kit including 1/8" and 3/32" collets, wrenches, dressing stone, and 47 assorted accessories in handsome steel case. For 115V, AC or DC.

3-022 Same as 3-021, but for 230V, AC or DC.

series **3**

SPECIFICATIONS

Motor — 1/14 hp, universal, sleeve bearing type.
Grinding Wheels—1/8"-1 1/4"; Chuck — 1/4".
Dimensions — Length (including chuck) 7 3/4". Major dia. — 2 11/16".
Weights—Net—2 lbs. 4 oz. Shipping (standard) 4 lbs.; (deluxe) 7 lbs.

BENCH STAND 3-201

Converts Series 10, 8 or 3 hand grinders into bench grinders for drill sharpening, burring, etc. Heavy cast-iron base, malleable-iron clamp, fast-action clamp lever. Grinder pivots vertically to any angle.

TOOL-POST BRACKET 3-202

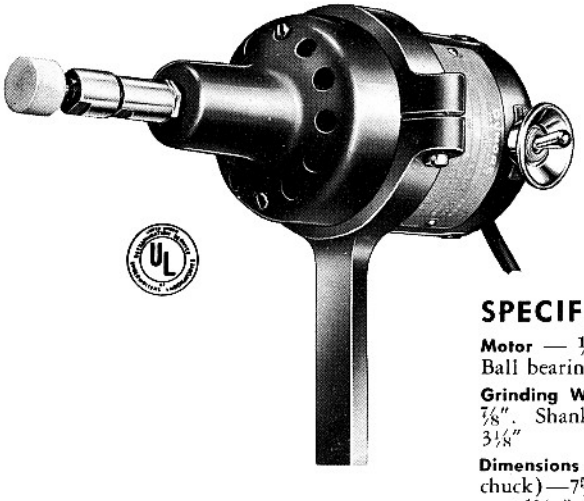
Instantly converts Series 10, 8 or 3 hand grinders into efficient tool-post grinders. Sturdy, malleable-iron construction with fast-action clamp lever for rigid tool lock. 3/8" x 7/8" shank, 2" long, 6 long" overall.

An inexpensive, high speed precision hand grinder with attachment for light cylindrical grinding — external and internal

Here's a utility grinding tool for light duty that pays off with big savings in time and production. You can mount the Series 23 on a lathe, milling machine or almost any machine tool in less than a minute with the handy attachment. Use it as a hand-grinder for off-hand grinding . . . as a bench grinder for light touch-up work. It grinds to tolerances of .0001" with mounted wheels up to 7/8" in dia. at speeds of 22,000 rpm.

23-011 Tool Post Grinder, 115V, AC or DC, 0-60 cycles, 1/8" chuck, mounted wheel, 2 wrenches, tool shank, 3-conductor cord, 2-prong plug.
23-012 same as above, but for 230 volts.

series **23**

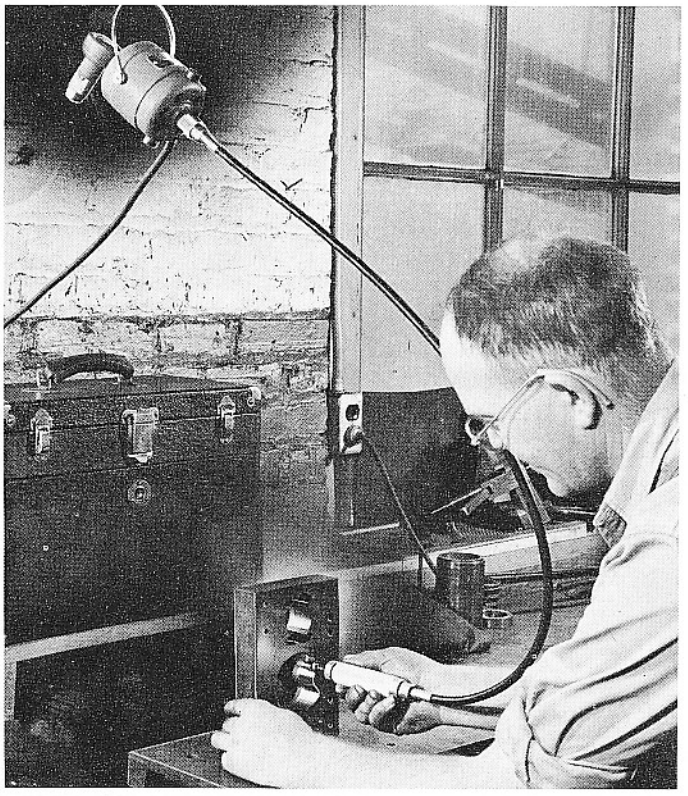


SPECIFICATIONS

Motor — 1/10 hp universal Ball bearing type
Grinding Wheels — 1/8" to 7/8". Shank 5/16" x 5/8" x 3 1/8"
Dimensions — Length (with chuck)—7 5/16". Major dia. — 2 11/16". Weight—3 lbs.

DUMORE PRECISION TOOLS

FLEX-SHAFT TOOLS



IT PAYS TO SWITCH TO DUMORE FLEX-SHAFTS

Here is a complete line of tools, with power range from 1/20 to 1/4 hp. No matter what your job requirement, or your shop budget, Dumore has the right flexible shaft tool for you. Ruggedly constructed, precision built, and real time and cost cutters, Dumore flexible-shaft tools are favorites with production, tool room and maintenance men. They get more work done per hour at less cost per piece, plus lower maintenance and less operator fatigue.

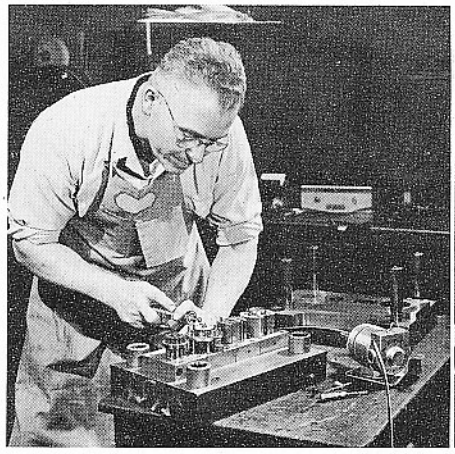
MAKE LIGHT WORK OF TOUGH JOBS

A Dumore Flexible-Shaft tool puts the power in your hand and the power plant on the bench. This means extra control on close-tolerance work plus steadier production and elimination of work fatigue. Labor costs are lowered because women can handle power finishing work. Tool has ability to work in cramped quarters. More work per hour no matter how you figure.

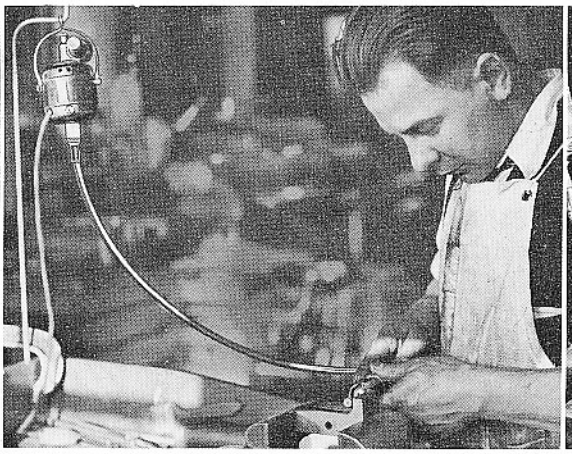
Excellent for grinding, burring, filing, sanding, lapping, chamfering, on steel, brass, copper, zinc, aluminum, plastics and ceramics. Their small work-head dimensions make them favorites, too, for multiple drilling setups on close centers.

QUALITY BUILT FOR LONG LIFE

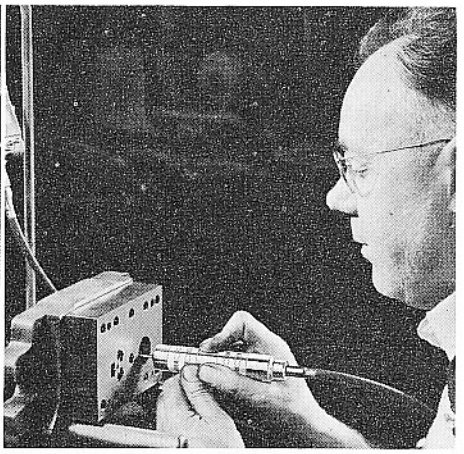
All motors are Dumore-built and continuous-duty rated, which means trouble-free performance. Heavy-duty, oil-resistant shafts are flexible for easy maneuvering, yet sturdy for long shaft life. Five models of lightweight, cool-running hand pieces give sure grip, close control. Foot rheostats that control tool speeds, yet leave both hands free to work, are available for all models. Dumore Flexible-Shaft tools are stocked and featured by leading Industrial Distributors. Tools, parts and service, as well as tool application ideas are instantly available whenever you want them. Ask your Dumore distributor to demonstrate cost-cutting flexible-shaft applications in your plant.



Touching up lamination die. Foot rheostat available for speed control.



Dumore flexible shafts permit work in tight places such as the finishing of small radii.



Light, easily manipulated hand piece affords operator close, accurate control for die work.

FLEX-SHAFT TOOLS

POWER-FLEX

Recommended for full-shift grinding, filing, burring with all ¼" or ⅛" shank tools

The Power-Flex gives you a full ¼ hp, 20,000 rpm production tool for continuous, full-shift duty. With the Power-Flex, you put the power in your hand and the power plant on the bench. A natural for use with carbide cutters. Heavy-duty, heat-insulated hand piece has grease-sealed bearings . . . weighs only 6 ounces . . . handles all ¼" and ⅛" shank wheels and cutters . . . has lock pin and wrenches for quick tool change. The 36" flexible shaft is moisture-, oil-, and grease-resistant. Motor has plate and swivel for both bench and hanging mount. Cat. No. 2-245 foot rheostat available for speed control.

6-011 Power-Flex consisting of 6-021, 115V, AC or DC motor with base; 6-210 flexible shaft; 2-205 hand piece, 2 collets (⅛" x ¼"), 2 wrenches.

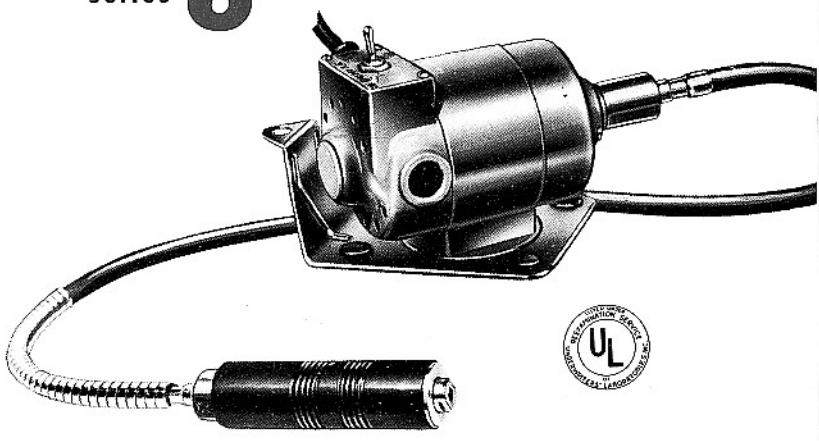
6-012 Same as above, but with 6-022 motor for 230V, AC or DC.

6-300 Accessory kit consisting of:
1 — ⅜" x ¾" x ¼" shank high-speed steel cutter
1 — ¼" x ⅛" shank ball-type high-speed steel cutter
1 — 3/16" x ⅜" x ⅛" shank flame-shape cutter
1 — B-135 mounted wheel, (¼" x ½" x ⅛")
1 — W-175 mounted wheel, (⅜" x ⅜" x ⅛")
2 — W-217 mounted wheels, (1" x ⅜" x ¼")

SPECIFICATIONS

Motor Type	Universal
Rated Hp	¼
No-Load Speed	20,000
Bearings	Ball
Weights —	
Net	6 lbs., 8 oz.
Shipping	8 lbs.

series 6



DUO-FLEX

Recommended for grinding, polishing, filing, lapping, deburring, chamfering

A production tool slightly less powerful than Series 6. 1/15 hp Dumore universal motor drives low-speed shaft from 500 to 3,500 rpm . . . high-speed shaft from 3,000 to 15,000 rpm. Instant switch-over of flexible shaft from high to low speed connection. Foot-operated rheostat gives accurate speed control . . . leaves both hands free for work. Sure-grip, cool-running, ball-bearing hand piece has Jacobs chuck for ⅛" accessories . . . quick-change key for all ⅛" accessories. The 36" flexible shaft is moisture-, oil- and grease-resistant . . . bail for convenient hanging of Duo-Flex near work.

2-011 Duo-Flex consisting of 2-061 motor, 115V, AC or DC; 2-220 Flexible Shaft; 2-203 Hand Piece; 2-240 rheostat.

2-012 Same as 2-011 but with 2-062 motor and 2-242 foot rheostat for 230V, AC or DC.

2-021 Consists of 2-061 motor, 115V, AC or DC; 2-220 flexible shaft; 2-203 Hand Piece but less rheostat.

2-022 Same as 2-012 but for 230V, AC or DC.

2-240 Foot rheostat (130 ohms) complete with heavy-duty, 3-way cord for use with 2-021 Duo-Flex on 115V, AC or DC.

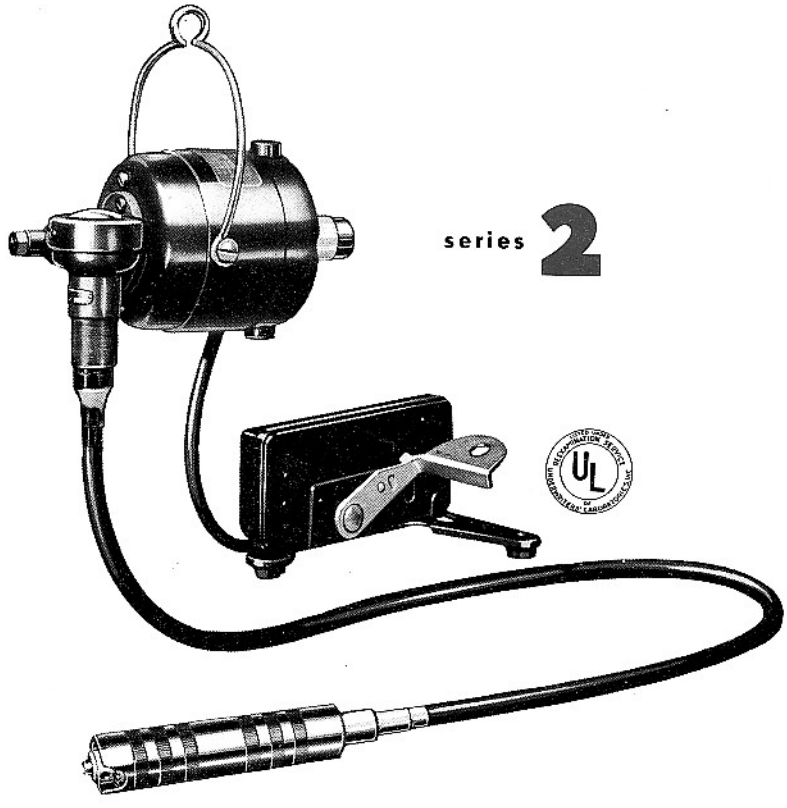
2-242 Foot rheostat (520 ohms) with 3-way cord for use with 2-022 Duo-Flex on 230V, AC or DC.

2-300 Accessory Kit consists of 3 mounted wheels and 5 burrs.

SPECIFICATIONS

Motor Type	Universal
Rated Hp	1/15
No-Load Speed	3,500 and 15,000
Bearings	Sleeve
Weights —	
Net	8 lbs.
Shipping	10 lbs., 8 oz.

series 2

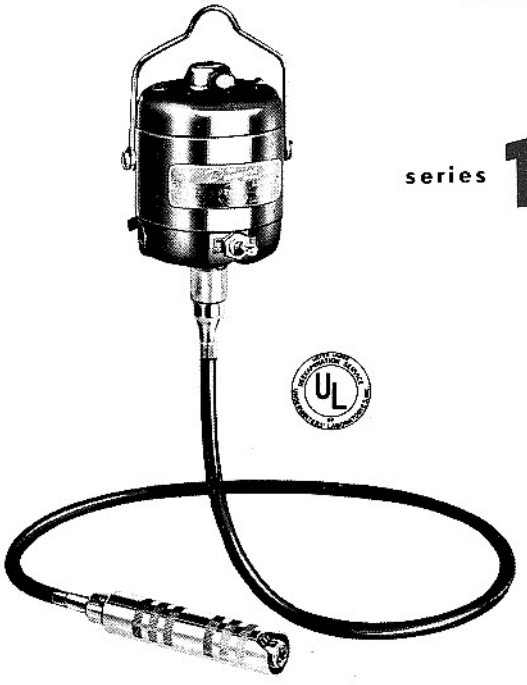


FLEX-SHAFT

DUMORE TOOLS

UNI-FLEX

Recommended for grinding, polishing, filing, lapping, deburring, chamfering, with 1/8" shank tools



series **1**

A bench and tool-room necessity. Same production-proved tool as the Duo-Flex but without low-speed gear box. A 1/15 hp Dumore universal motor swings 1/8" shank tools at 15,000 rpm. Foot rheostat available for speed control from 5,000 to 15,000 rpm . . . leaves both hands free for work. Bail-mounted motor can be hung where most convenient, or locked in vise. Moisture-, oil- and grease-resistant, 36" flexible shaft. Sure-grip, cool-running, ball-bearing hand piece has 0 to 1/8" Jacobs type chuck with key . . . weighs only 6 oz. Gives sensitive control . . . does not tire operator.

1-011 Uni-Flex consisting of 1-021 motor with bail; 2-220 flexible shaft; 2-203 hand piece; for 115V, AC or DC.

1-012 Same as 1-011 but for 230V, AC or DC.

2-240 Foot rheostat (130 ohms) complete with heavy-duty 3-way cord, for use with 1-011 Uni-Flex on 115V, AC or DC.

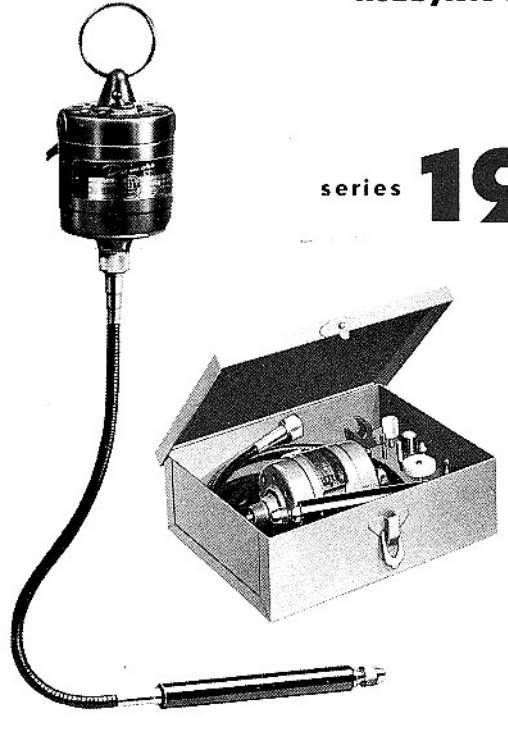
2-242 Foot rheostat (520 ohms) complete with cord for use on 1-012 Uni-Flex on 230V, AC or DC.

SPECIFICATIONS

Motor Type	Universal
Rated Hp	1/15
No-Load Speed	15,000
Bearings	Sleeve
Weights —	
Net	6 lbs.
Shipping	7 lbs.

LIGHT-DUTY

Recommended for light industrial applications... grinding, burring, filing, polishing . . . ideal for hobbyists looking for long-life tool



series **19**

The Series 19 1/20 hp Dumore universal motor hangs out of way on hook or nail, delivers 15,000 rpm to lightweight, pencil-grip hand piece. Quick-change chuck at end of oil-resistant flexible shaft takes all 1/8" and 3/32" mounted accessories . . . see next page for supplemental hand pieces and rheostat for speed control. An excellent choice for light and intermittent industrial work.

19-021 Light-Duty, Standard kit including motor, flexible shaft, 2-201 hand piece and wrenches. For 115V, AC or DC.

19-011 Light-Duty, DeLuxe Kit including motor, flexible shaft, 2-201 hand piece and 10 accessories in metal box. For 115V, AC or DC.

SPECIFICATIONS

Motor Type	Universal
Rated Hp	1/20
No-Load Speed	15,000
Bearings	Sleeve
Weights —	
Net (Standard)	3 lbs.
(DeLuxe)	5 lbs.
Shipping (Standard)	3 lbs., 8 oz.
(DeLuxe)	5 lbs., 8 oz.

ATTACHMENTS

HAND PIECES

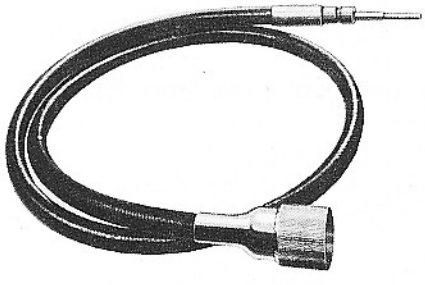
2-200 Sleeve bearing hand piece. Same as 2-201 but with sleeve that slides over chuck for extra-close work. Use with Series 19 Flex-Tool on light work. ¾" dia., 5 3/16" long, weight 3 oz.

2-201 Sleeve bearing hand piece. Light, pencil size, bakelite housing. Equipped with chuck for 3/32" and ⅛" shank accessories. For light work with Series 19 Flex-Tool. ⅝" dia., 5 3/16" long, weight 2 oz.

2-202 Sleeve bearing hand piece. Same as 2-201 but supplied with 0 to ⅛" Jacobs chuck and key for quick change of accessories. For light work with Series 19 Flex-Tool. ⅝" dia., 5 3/8" long, weight 3 oz.

2-203 Ball bearing hand piece with 0 to ⅛" Jacobs chuck and key. Grease-sealed bearings; metal construction. For continuous service on Series 1, 2, and 19 Flex-Tools. 1" dia., 5" long, weight 6 oz.

2-205 Heavy-duty ball bearing hand piece. ¼" and ⅛" chuck. Grease-sealed bearing. Insulating sleeve for cool continuous service. For Series 6 only. 1 7/16" diameter, 5⅝" long, weight 11 oz.



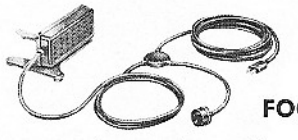
FLEXIBLE SHAFTS

Designed for smooth-running operation and capable of close, accurate work. Sheaths are oil and moisture resistant — adapter connections are simple and positive. Hand piece changes made instantly.

2-220 for Series 1 and 2 Flex-Tools complete with core and sheath, less hand piece.

6-210 for Series 6 Flex-Tool complete with core and sheath, less hand piece.

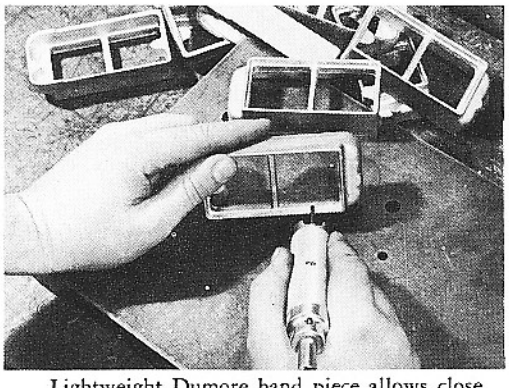
19-210 for Series 19 Flex-Tool complete with core and sheath, less hand piece.



FOOT RHEOSTATS

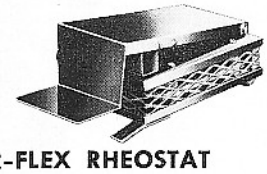
For variable speed control on Series 1, 2, 3, and 19 Flex-Tools. Operates with light foot pressure. Leaves hands free to work. Pressed steel construction. No special connections required. Furnished with 3-way cord — rated 90 watts. Specify Cat. No. of your tool when ordering.

Cat. No.	Resistance	Cat. No.	Resistance
2-240	130 ohms	2-242	520 ohms
2-241	220 ohms	2-243	900 ohms
2-245	for Power-Flex		60 ohms



Lightweight Dumore hand piece allows close control in cramped work space.

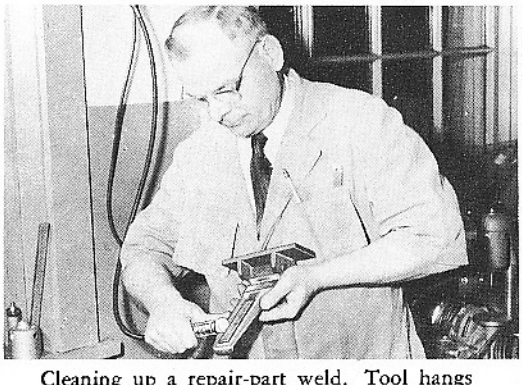
Power-Flex handles all die finishing for this midwest carton manufacturer.



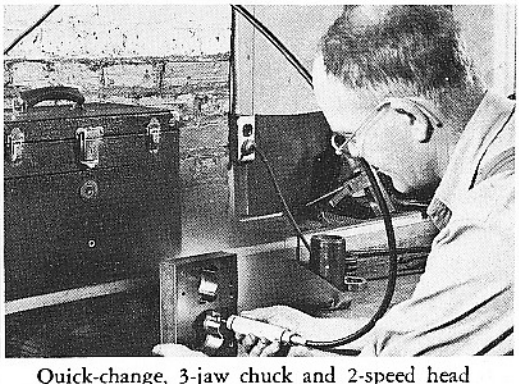
POWER-FLEX RHEOSTAT

Heavy duty 9 step foot rheostat, 60 ohms, 115V. Built solid. Low construction eliminates tipping or tilting. Large treadle can be operated by toe or entire foot. No open wires. Ventilated resistance element. Tool connects to outlet at back of rheostat. Furnished with 8 ft. cord.

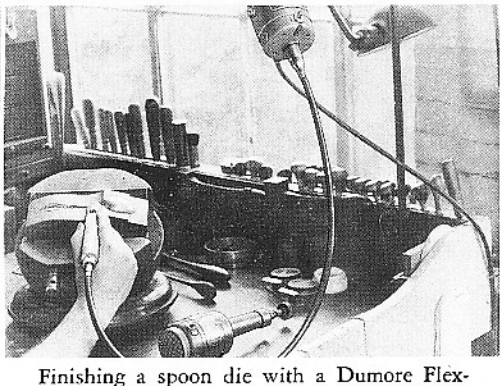
2-246 230 volts, 240 ohm rheostat for 230V. Power-Flex.



Cleaning up a repair-part weld. Tool hangs out of way, ready when needed.



Quick-change, 3-jaw chuck and 2-speed head make the Series 2 a favorite.



Finishing a spoon die with a Dumore Flex-Shaft. Note Dumore hand grinder.

DUMORE PRECISION TOOLS

AUTOMATIC

DRILL HEAD

THE AUTOMATIC DRILL HEAD WITH BUILT-IN CONTROLS

series **20**

This new Dumore tool virtually eliminates drill breakage when used for small-diameter, deep-hole drilling operations.

In proven tests under average conditions, it has set remarkable production records when operating with drill diameters up to 3/32" in steel; up to 1/8" in brass, aluminum, zinc and cast iron; up to 5/32" in plastics and wood.

Utilizing "resistance drilling," the workpiece determines the rate of drill feed and speed. Tool always maintains uniform pressure. No need to rely on operator guesswork. It works closer to the maximum strength of drill.

Has completely automatic built-in controls, yet is only 14½" long and 4½" in diameter. Weighs only 17½ lbs. Powered by a well-engineered, quality-built Dumore motor and equipped with Jacobs chuck.

Automatic built-in controls give you these features:

SELF-CONTAINED AIR
No cumbersome air lines to hook up. Simply plug into electrical outlet. Built-in rotary air compressor advances drill at *required* speed and pressure for new "resistance drilling."

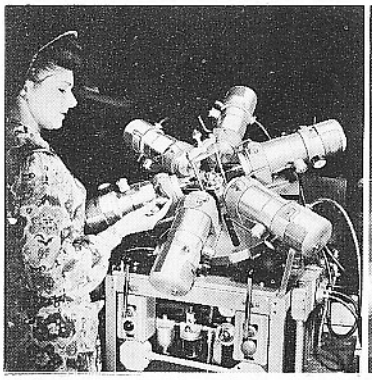
AIR FEED PRESSURE REGULATOR
Permits adjustment of pressure up to 15 psi. Allows for variation in drill size. This simple control governs rate of drill advancement in work. Once set, stroke advance is constant.

FINE ADJUSTABLE DEPTH CONTROL
Select depth of stroke by adjustable stop nuts. Allows *measured depth* drilling from 1/32" to 1⅛". Can be controlled to .004" tolerance.

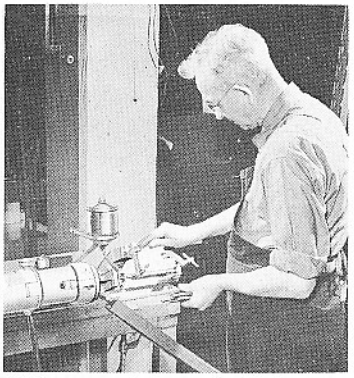
AUTOMATIC CHIP CLEARANCE
"Depth Staging" feature provides retraction of drill at proper intervals for chip clearance. Prevents drill break-through, practically eliminates costly drill breakage.

MAXIMUM DRILLING PRODUCTION
Automatic operation of drill allows free use of operator's hands. Fast, one-time setup makes this machine ideal for simultaneous operations.

Sound equipment manufacturer cashed in on big savings. Cut drill breakage to the bone.



Production machine shop reduced costs 97%. First 4½ hours production repaid cost of heads.



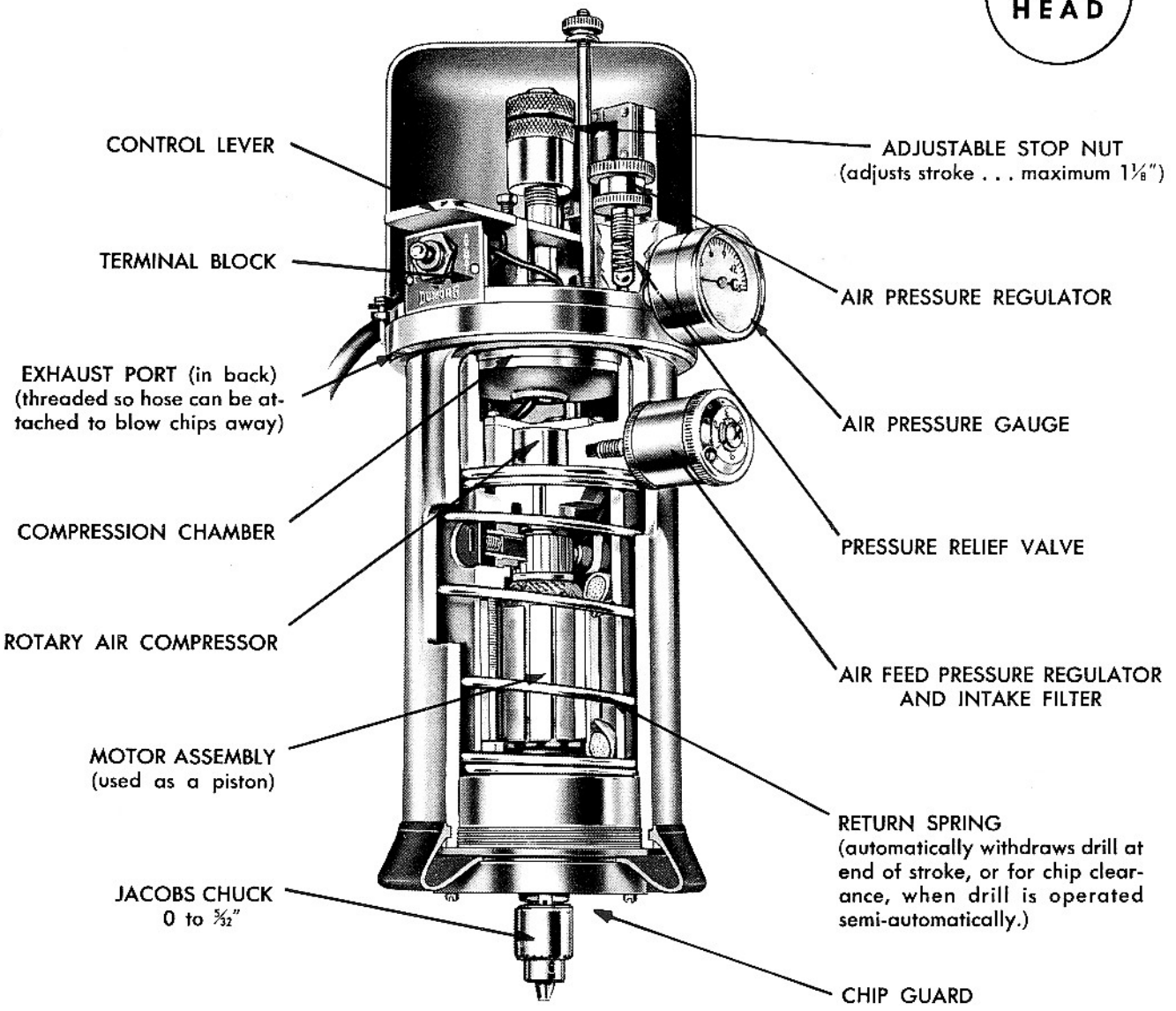
Motor manufacturer doubled production on armature shaft operation. Cut drill breakage 25 times.

AUTOMATIC

DUMORE

DRILL HEAD ®

SIMPLE, COMPACT DESIGN



HOW IT OPERATES

By actuating a switch lever or the remote-control switch, air is drawn through the feed regulator and air intake filter by the action of a spinning rotary vane compressor mounted on the armature shaft. The compressed air is then forced through a duct up to the compression chamber. This drives the motor assembly, acting as a piston, toward the workpiece. When pre-set drill depth is reached, an exhaust port opens to release pressure from compression chamber. A coiled spring returns drill to starting position ready to begin next drilling cycle.

Correct pressure for each drill size within the tool's capacity is possible by adjusting pressure regulator on unit. This unique, but practical control of feed and speed is vital for small-hole drilling to prevent drill breakage. Drill always operates at maximum efficiency for high production and low scrap and drill losses. The 1⅛" stroke can be controlled to within approximately .004" by turning easily accessible stop nut.

AUTOMATIC

DRILL HEAD

SPECIFICATIONS

MOTOR

Type	Series Universal
Horsepower	⅛
Voltage	115, also available for 230
Current	25-60 Cycles AC only
Amperes	2.5

COMPRESSOR

Type	3-Vane Rotary
Piston Head Area	9.5 sq. in.
Drilling Pressure	9.5 x dial reading — 20
	(Gauge registers in pounds per sq. in.)
Exhaust Port	⅛" pipe tap

DIMENSIONS

Major Diameter	4.523"
Body	3.988"
Overall Length (Includes Chuck)	14.250"

DRILL

Speed Range	2500 to 7500 rpm
Chuck Capacity	Jacobs No. 0, 0 to 5/32"
Drill Size	No. 80 to 3/32" in cold rolled steel (SAE 1020) No. 80 to ⅛" in brass, zinc, aluminum, cast iron No. 80 to 5/32" in plastics, wood

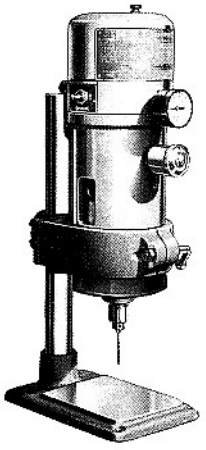
WEIGHTS*

Net Weight	17½ lbs.
Shipper's Weight	22 lbs.

* With basic mounting bracket supplied with each unit. Drill press mounting bracket available at slight additional charge for mounting to 2¾" and 3½" columns.
Cat. No. 20-011 115V 50/60 AC only.
Cat. No. 20-012 230V 50/60 AC only.

ATTACHMENTS

ADJUSTABLE BENCH STAND



For fast, easy, compact set-ups on all small-parts operations

On most small hole drilling operations, you'll get more production, save time, space, and big drill press wear by attaching an Automatic Drill Head to the new, handy Dumore Bench Stand. Quick lever height-adjustment up to 8" is possible on machined steel column. Base 5" x 8" requires minimum bench space, yet is sturdy and stable with ample space for drill fixtures. Unit can be easily shifted to take advantage of available space, or to relieve production bottle-necks.

Cat. No. 20-213 Bench Stand.

REPEAT CYCLE TIMER

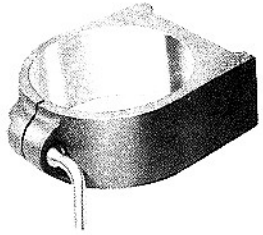
For Automatic Chip Clearance and Multiple Unit Operations

To drill tough, stringy materials, or depths greater than 3 drill diameters, many production men use the Dumore Automatic Drill Head equipped with Repeat Cycle Timer. They get faster, better holes, less drill breakage, less scrap, and longer drill point life, because this set-up clears chips by advancing and retracting drill automatically at regulated intervals. Setting two dials on Timer panel controls drill action. By operating one or a number of Drill Heads simultaneously from a single Repeat Cycle Timer, production can be stepped up tremendously. Ideal for operation with indexing fixtures.

20-300 Repeat Cycle Timer 115V, AC 50/60 cycles.

20-301 Repeat Cycle Timer 230V, AC 50/60 cycles.

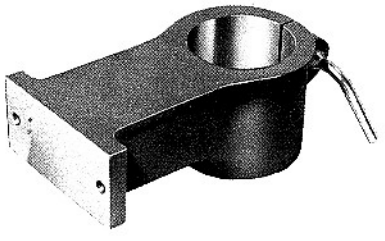
ACCESSORIES



STANDARD MOUNTING BRACKET

Slips over motor housing of Drill Head and locks with handy lever. Heads can be easily adjusted for desired height. Two holes in base are threaded for quick bolting to benches, table or plates. Can be combined with mounting bracket shown at right for use on Drill Press.

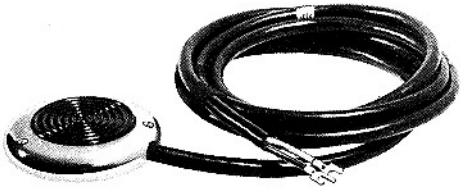
Cat. No. 20-210.



DRILL PRESS MOUNTING BRACKET

Lightweight cast aluminum to fit standard drill-press column. Handy lever for rigid locking—easily mounted on your special fixtures or on Standard Mounting Bracket at left. Aperture 2¾" for 14" press and 3½" for 17".

Cat. No. 20-211 (14").
Cat. No. 20-212 (17").



FOOT CONTROL SWITCH

Consists of button-disc switch and necessary wiring to convert Drill Head to foot control. Leaves operator's hands free to load and unload fixtures. Especially useful where gang operation of Drill Heads is required. Switches can be mounted in line and actuated by foot bar.

Cat. No. 20-200.

AIR LINE

DUMORE PRECISION TOOLS

CONNECTS TO SHOP AIR LINE

DRILL HEAD ®

Recommended for use where greater capacity and more speed must be obtained

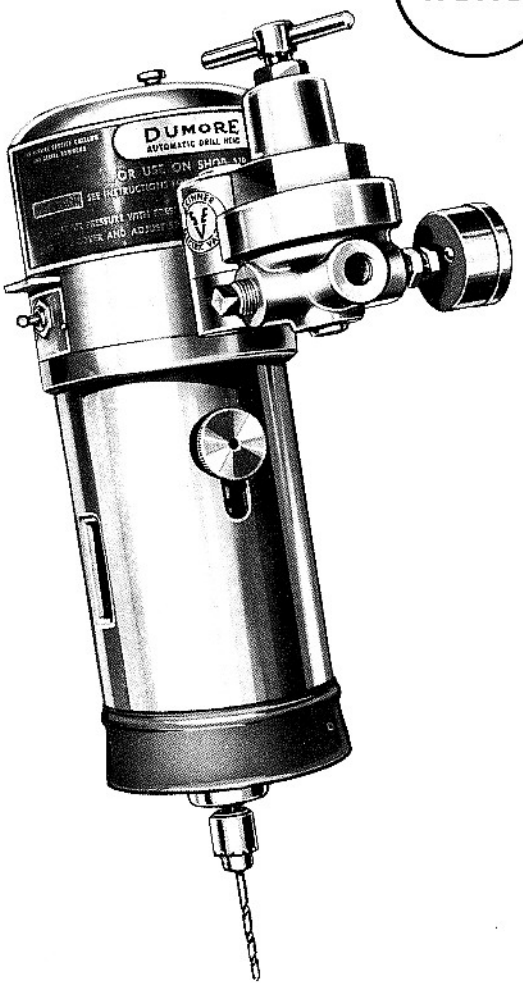
The Air Line Drill Head is almost identical to the 20-011 Automatic Drill Head. However, since it has no built-in compressor, it depends on a external air line to feed drill into workpiece.

This unit has its advantages for applications that slightly exceed the capacity of the Automatic Drill Head. It is very effective on big production runs, particularly in shallow depths and where faster cycling and greater drill speeds are required.

The Air Line Drill Head is not recommended for drills smaller than .040". A complete hole is drilled each time the control switch is actuated. Speeds range up to as high as 12,000 rpm.

Unit is simple to operate, easy to service. Handles drills several sizes larger than the capacity of the Automatic Drill Head. Motor provides power to rotate drill. Air line pressure advances drill through workpiece. No lubrication of unit is necessary.

Furnished electric solenoid controls air intake and release. Alemite pressure regulator adjusts pressure to drill size. Units operate best from a filtered and oiled shop air line.



SPECIFICATIONS

Motor — Same as Drill Head

Dimensions — Same as Drill Head

Drill

Speed Range —
Up to 12,000 rpm — No load

Chuck Capacity —
Jacobs No. 0, 0 to 5/32"

Drill Size — No. 60 to 7/64" in mild steel
No. 60 to 9/64" in brass, aluminum, zinc, cast iron
No. 60 to 11/64" in plastic, wood

Weights
Net — 21 lbs.
Shipping — 25½ lbs.

Cat. No. 20-021 — for operation on 115V, 50/60 Cycle AC only. Furnished with Standard Mounting Bracket, Electric Solenoid, and Pressure Regulator.

Cat. No. 20-022 — Same as above except for 230V, 50/60 Cycle AC operation.

HI-SPEED SENSITIVE DRILL PRESS

series **16**

Recommended for production drilling of small holes in small work —

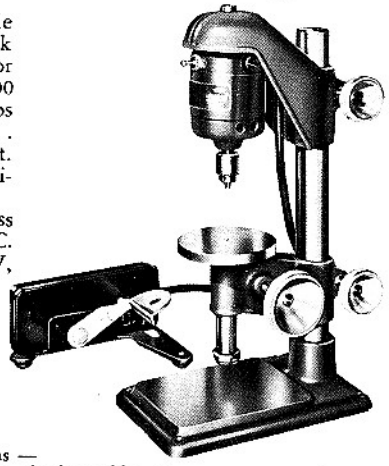
The ideal tool for high-speed, small-hole production. Fast, sensitive feed. Quick set-up. 1/16 hp Dumore universal motor . . . foot rheostat gives speeds from 2,000 to 17,000 rpm. 0 to 1/8" capacity Jacobs chuck . . . 3½" diameter work table . . . 6" clearance from drill center to post. Drill and table brackets adjustable horizontally and vertically.

16-011 High-Speed Sensitive Drill Press with rheostat for 115V, AC or DC.

16-012 Same as 16-011, but for 230V, AC or DC.

16-021 Same as 16-011, but without rheostat.

16-022 Same as 16-012, but without rheostat.



SPECIFICATIONS

Motor Type	Universal
Voltage	115V, AC or DC, 0 to 60 Cycle
Horsepower	1/16
Speed	17,000
Speed with Rheostat	2,000 to 17,000 rpm
Chuck Capacity	0 to 1/8"
Dimensions —	
Max. dis., chuck to table	4"
Table Feed	1 3/8"
Drills to center of	6" circle
Table Diameter	3½"
Overall Height (max.)	17"
Net Weight	15 lbs.
Shipping Weight	25 lbs.

DRILL SPEEDER

series **17**

Recommended for high-speed small hole production in aluminum, brass, bronze, copper, etc.

The Drill Speeder converts any standard drill press into a high-speed drill in less than 1 minute. Also mounts on turret and engine lathes, milling machines, etc., to add small hole drilling to work cycle. 0 to 1/8" Jacobs chuck. 17,000 rpm no load speed.

17-011 Drill Speeder with cord, 0 to 1/8" Jacobs chuck, and straight shank for 115V, AC or DC.

17-012 Same as 17-011, but for 230V, AC or DC.

17-021 Same as 17-011, but with No. 2 Morse-taper shank.

17-022 Same as 17-012, but with No. 2 Morse-taper shank.

SPECIFICATIONS

Motor Type	Universal
Voltage	115V or 230V, AC or DC, 0 to 60 cycles
Horsepower	1/16
Speed	17,000
Chuck Capacity	0 to 1/8"
Dimensions —	
Length (Incl. chuck and shank)	8"
Diameter	2 1/16"
Shank diameter	3/8"
(No. 2 Morse-taper shank also available)	
Net Weight	2.5 lbs.
Shipping Weight	3.0 lbs.

DUMORE PRECISION TOOLS

DRILL

®

GRINDER

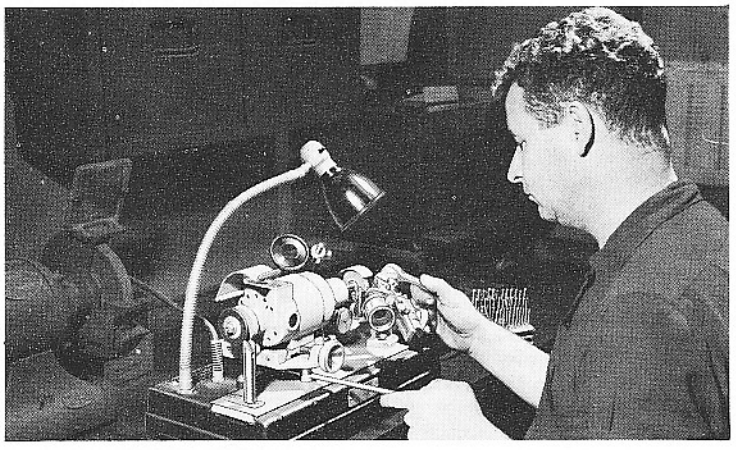
THE DUMORE DRILL GRINDER GIVES YOU MORE PRODUCTION . . . LONGER DRILL LIFE . . . CLEANER HOLES . . . UNIFORM HOLE SIZE . . . SPECIFIED POINT AND CLEARANCE ANGLES

Now . . . for the first time, you can get a drill grinder that eliminates expensive and inefficient hand sharpening of small drills — does away with old-fashioned, cumbersome and inaccurate equipment. This remarkable new Dumore grinder sharpens small twist drills with amazing precision, speed and accuracy. It sharpens all 2-lip twist drills — No. 70 to ¼", *including crankshaft drills.*

It is capable of exactly grinding a drill point to any included angle from 90° to 150°, and any clearance angle from 5° to 15°. Broken drills can be quickly reclaimed and sharpened.

Drills ground on a Dumore match *and in most cases better* original factory specifications. Production increases because you select the correct point and clearance angle to obtain maximum penetration of material being drilled. You get many more holes per shift . . . less down time for drill changes. Furthermore, you get exact hole size with excellent finish every time — more workpieces that meet required tolerances.

Drills sharpened on the Dumore grinder stay sharp longer . . . last longer . . . *only a fraction of drill stock is removed* on each pass against the grinding wheel. This cuts drill replacement costs.

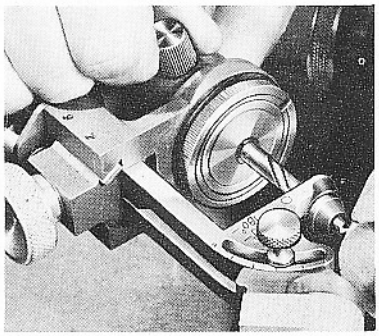


The modern way to completely eliminate inefficient hand sharpening of small drills — No. 70 to ¼"

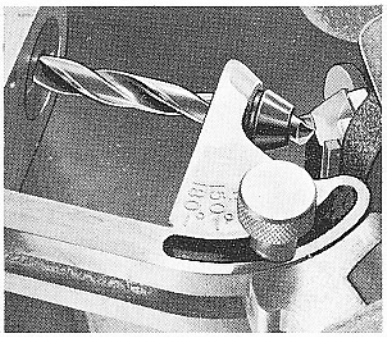
Because even inexperienced help can now grind drills *right the first time,* shop foremen, setup men, other key workers are relieved of drill sharpening responsibilities. They can keep on more productive jobs that pay off for you.

Take the guesswork out of drill grinding. Get exactly ground drills in a matter of seconds . . . with Dumore.

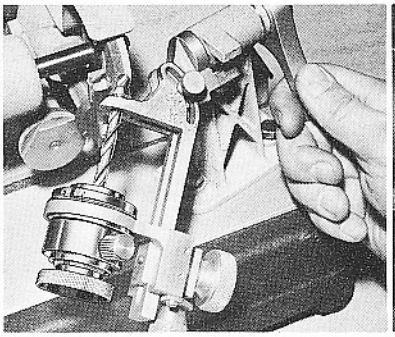
EASY TO USE — Save time for skilled hands — get precision sharpening every time.



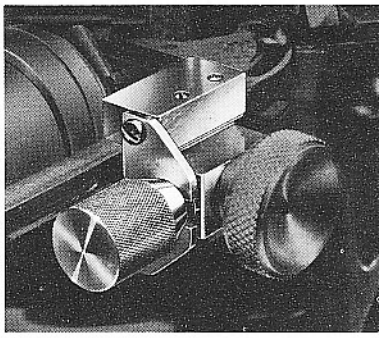
Insert drill through chuck and lock — No chance for errors. Drill is held rigidly in correct position—eliminating guesswork and unsteady hand movements.



Align drill lip with lip guide — New Dumore grinder always puts drill in right position . . . automatically assures centered point and equal cutting edges.



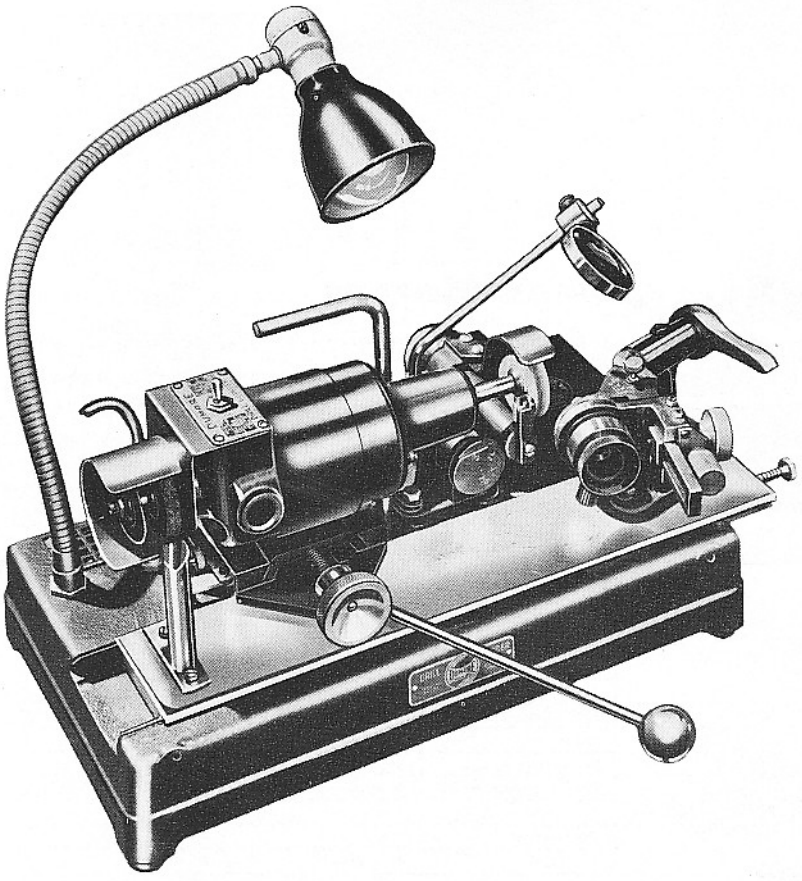
Depress chuck lever and grind — It's fast, easy . . . only fingertip pressure needed. No awkward motions slow up operator. You're ready in seconds.



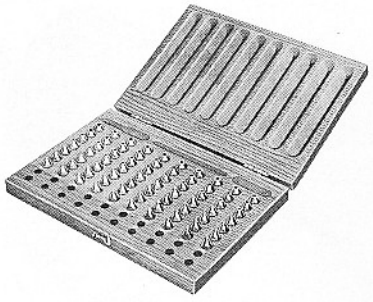
Feed-in attachment — a DUMORE exclusive — Eliminates small-drill breakage, point burning, and wheel gouging. Gives close control of finish cuts on fine resharpening. Speeds sharpening when extreme changes of point or clearance angle are required.

DRILL GRINDER®

DUMORE PRECISION TOOLS



series **21**



SPECIFICATIONS

Motor

Type	Universal
Horsepower	⅙
Voltage	115V
	220V Available
Current	DC or AC, 0-60 cycle
Amperes	1.0
Bearings	preloaded ball, spindle lubricated for life

Chuck

Capacity	¼″ to No. 70
Collets	
Furnished as Standard Equipment	(1) ¼″
Available	(70) No. 1 to No. 70
	(15) 1/32″ to ¼″
	(81) .7 to 6.3 mm
	(5) A to E

Optional equipment—collet kits and accessories

Cat. No. 21-102 70 Number Collets, 1 through 70 with case.

Cat. No. 21-103 5 Letter Collets, A through E, less case.

Cat. No. 21-104 15 Fractional Collets, ¼″ through 1/32″ less case.

Cat. No. 21-105 81 Millimeter Collets, 6.3 through .7 with case.

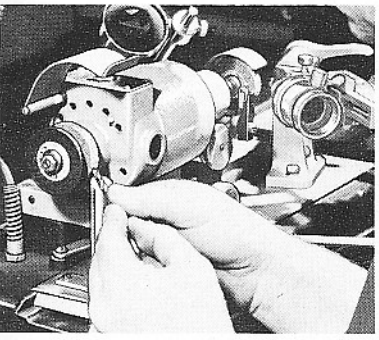
Cat. No. 21-101 Mahogany Collet Case (holds 90 collets).
(All collets available in complete kits or individually)

EQUIPMENT SUPPLIED
1 — ¼″ Collet
1 — Diamond Wheel Dresser
2 — Grinding Wheels (2″x⅜″x¼″)
1 — Grinding wheel (2″x1/16″x¼″)
1 — Setup Gauge
4 — Wheel Collars
3 — Grinding Wheel Spacers

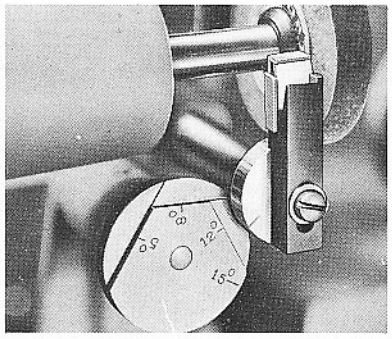
Cat. No. 21-011
Precision Drill Grinder, 115V, complete with
1 — ¼″ Collet
1 — Diamond Wheel Dresser
2 — Grinding Wheels (2″x⅜″x¼″)
1 — Grinding wheel (2″x1/16″x¼″)
1 — Setup Gauge
4 — Wheel Collars
3 — Grinding Wheel Spacers

Cat. No. 21-012
Precision Drill Grinder, same as above, but for 230V.

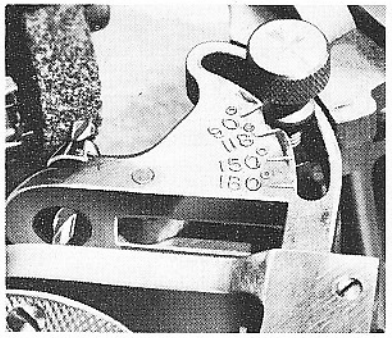
Just set and grind.



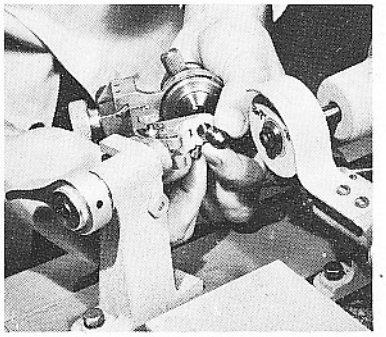
Drill Reclaimer — reshapes broken drills — Badly damaged points or broken drills can be rough ground and reshaped on roughing wheel . . . then sharpened. Grooved drill rest also serves as a holder and locating fixture for diamond wheel dresser.



Fast Clearance Angle Selection — Just set the numbered dial. The right relief, from 5° to 15° allows drill to roll clean chips without loading . . . assures better hole finish and exact hole size.



Fast Drill Point Angle Selection — Setting thumb screw to desired point angle (from 90° to 150°) assures equal drill lips . . . correct included angle for best penetration in any material.



Fast Collet change to exact drill size —Select desired collet according to drill size (No. 70 to ¼″). Insert collet — tighten set screw and you're ready to grind drills . . . quickly and accurately.

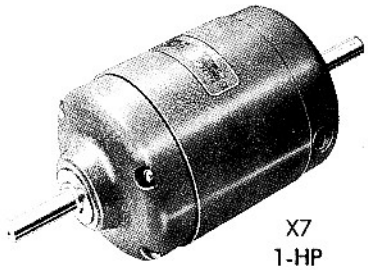
DUMORE MOTORS

FOR EXTRA POWER HOURS

Fractional-Horsepower Motors

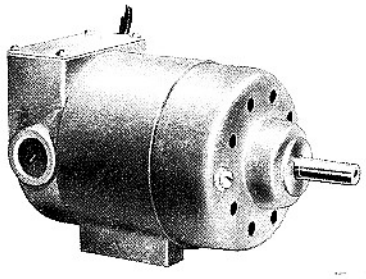
Here's a line of continuous duty fractional horsepower motors — *available from stock* — made to the same precise standards as those used on Dumore industrial tools. Operating on both AC or DC, these universal motors develop exceptionally high horsepower for their weight and size — greater than most other types of motors.

Models X-7, W-2 and KB motors are rated 1, 1/2 and 1/5 horsepower respectively. Typical applications are drills, grinders, routers, centrifuges, blowers, buffers, sirens, pumps and coil winding machines. The gear — motor, model KLA is available in five different gear ratios ranging from 5 to 1 at 1/9 hp to 64 to 1 at 1/20 hp. Typical gear-motor applications: variable speed transmission controls, turbine governors, x-ray machines.

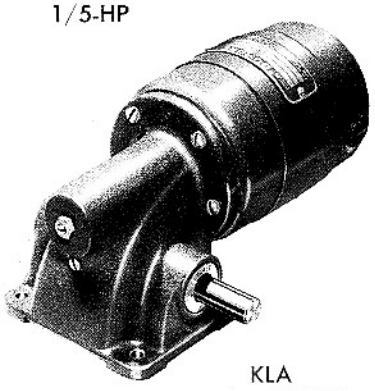


X7
1-HP

W2
1/2-HP



KB
1/5-HP



KLA
GEAR-MOTOR
5 MODELS

MOTOR SPECIFICATIONS

	X-7		W-2		KB	
TYPE OF MOTOR	Compensated, Series		Series, Univ. 0-60 Cy.		Series, Univ. 0-60 Cy.	
CONSTRUCTION DETAILS	Univ. 0-60 Cy.					
DEGREE OF ENCLOSURE	Open		Open		Open	
METHOD OF COOLING	Internal Fan		Internal Fan		Internal Fan	
BEARINGS	Grease-sealed, Ball		Grease-sealed, Ball		Grease-sealed, Ball	
ROTATION AT COMMUTATOR END	Clockwise		Clockwise		Clockwise	
HOUSING MATERIAL	Cast Alum.		Cast Alum.		Die Cast Alum.	
HOUSING FINISH	Blue-grey		Blue-grey		Blue-grey	
LEAD LENGTH	12"		12"		6"	
WEIGHT	12 lb. 8 oz.		8 lb. 12 oz.		4 lb. 6 oz.	
SHAFT EXTENSION	Both Ends .625 x 1 7/8"		.500 x 1 1/2"		.375 x 1"	
FULL LOAD RATING	60 Cy, AC	DC	60 Cy, AC	DC	60 Cy, AC	DC
VOLTS	115	115	115	115	115	115
AMPERES	12	10	6.3	6.2	2.3	2
WATTS INPUT	1400	1150	680	710	240	230
HORSEPOWER OUTPUT	1.0	1.0	1/2	2/3	1/5	1/5
TORQUE (lb.-ft.)	.70	.70	.34	.43	.13	.13
FULL LOAD RPM	8,000	8,000	8,000	8,000	8,000	8,000
NO LOAD RPM	15,000	15,000	18,000	18,000	17,000	17,000
EFFICIENCY (%)	53.4	64.8	57.5	70	62.5	65
DUTY	Cont.	Cont.	Cont.	Cont.	Cont.	Cont.
TEMP. RISE	40° C	40° C	40° C	40° C	40° C	40° C

GEAR-MOTOR SPECIFICATIONS

CLASS OF MOTOR	SERIES (UNIV.) 0-60 CYCLES
CONSTRUCTION DETAILS	
DEGREE OF ENCLOSURE	Open
METHOD OF COOLING	Internal Fan
BEARINGS	Compo Bronze
LUBRICATION: GEAR UNIT	Light Grease Bath
MOTOR BEARING, GEAR UNIT END	Splash from Gear Unit
MOTOR BEARING, COMMUTATOR END	Yarn Packed Oil Reservoir
DIRECTION OF ROTATION — COMMUTATOR END	Clockwise
OUTPUT SHAFT	Clockwise
HOUSING MATERIAL — MOTOR AND GEAR UNIT	Cast Alum.
HOUSING FINISH	Blue-Grey
LEADS, LENGTH	6"
WEIGHT	6 lb., 8 oz.
SHAFT EXTENSION	.500 x 1 1/4"

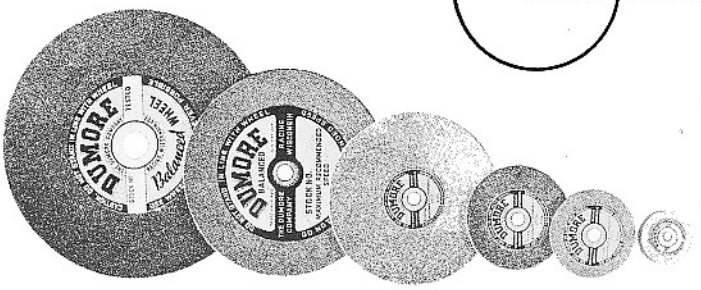
FULL-LOAD RATINGS OUTPUT SHAFT — CONTINUOUS DUTY — 40° C. RISE

VOLTAGE	115 VOLTS, 60 CYCLES, A. C.					115 VOLTS, D. C.				
RATIO										
AMPERES	1.83	1.83	1.83	1.83	1.83	1.79	1.79	1.79	1.79	1.79
WATTS INPUT	185	185	185	185	185	206	206	206	206	206
HP OUTPUT	1/9	1/10	1/14	1/15	1/20	1/7	1/7	1/10	1/13	1/16
TORQUE (lb.-ft.)	.438	1.12	1.81	2.50	2.56	.515	1.50	2.50	3.00	3.18
FULL-LOAD RPM	1400	483	206	140	106	1400	483	206	140	106
NO-LOAD RPM	2825	974	415	283	214	2825	974	415	283	214
EFFICIENCY (%)	46.9	41.5	28.6	26.8	20.8	49.5	50.0	35.4	28.9	23.2
DUTY	Cont.	Cont.	Cont.	30 min.	30 min.	Cont.	Cont.	Cont.	30 min.	30 min.

NOTE: Values given above are average and may vary slightly for a particular motor.

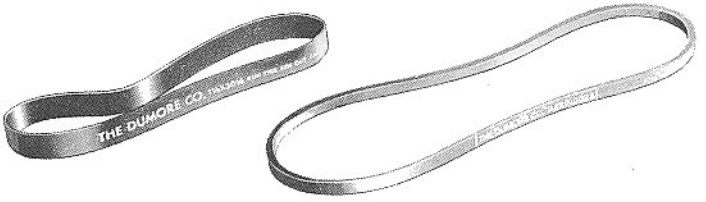
BALANCED WHEELS

An important factor in preserving the precision in your Dumore grinder is *the use of Dumore precision balanced wheels.* Inferior and out-of-balance wheels can easily nullify the precision that has been built into the grinder and greatly reduce its operating life. All Dumore wheels are laboratory-proven and inspected to give the best performance possible and assure long life for the precision bearings used in Dumore quills. They are selected and balanced for the tool on which they are used. For lower maintenance cost and longer grinder life — there is no substitute for a Dumore precision wheel.

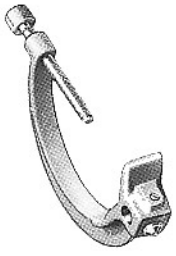


DUMORE BELTS

The woven seamless belts that are used in driving Dumore quills are manufactured to rigid Dumore specifications. They are carefully inspected to assure proper length and perfect weave, free from variations in weight or thickness. This uniformity of quality is your assurance of smooth power transmission, a practical necessity for close tolerance grinding.



DUMORE DIAMOND WHEEL DRESSERS

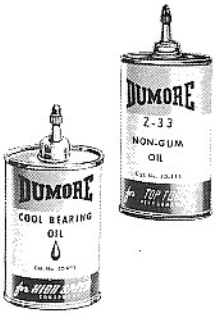


Clamp on workpiece or piece of material chucked in lathe. Diamond nib can be inserted at sides or end of C-clamp. A few light strokes clean up dull cutting wheels, makes face parallel to workpiece, a requirement for precision grinding. Two sizes — **5-110** with 2 1/16" span and **12-110** with 4 3/8" span.

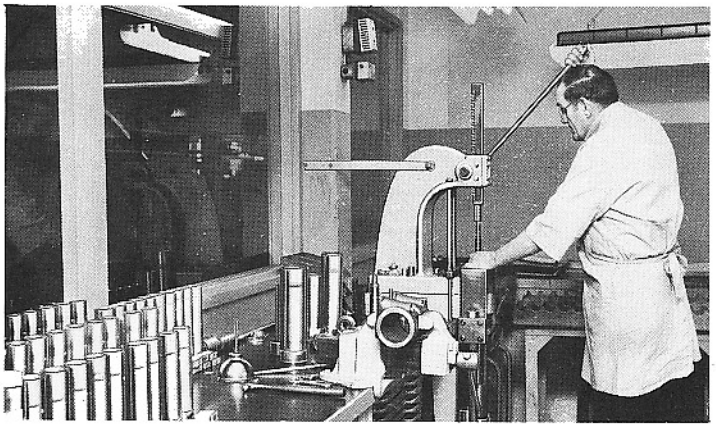
DUMORE OILS

COOL BEARING OIL — Chemically fortified oil lubricates and protects high-speed spindles, bearings and motors. It has double film strength, higher heat conductivity and lower fluid friction. All foreign particles are eliminated.

Z-33 NON-GUM OIL—A highly refined, chemically fortified, oil. Non-corrosive, non-gumming, and relatively non-staining. Recommended for use with Dumore Automatic Drill Head. Excellent also for tools, motors and small machines.



SERVICE



When you buy a Dumore, you get precision that is absolutely guaranteed. You must be satisfied with the tool's performance or your money will be refunded. Dumore tools are precision-built with quality materials by highly skilled craftsmen.

Dumore tools may be serviced at the factory or at any one of several service stations. Tools sent in for servicing are thoroughly checked, and only those parts necessary to put the tool in operating condition are replaced. When returned, it is as fine as the new unit originally purchased.

Always use genuine Dumore parts to assure the best in tool performance. A few extra parts or accessories kept on hand help prevent tool down-time. Order replacement parts and accessories through your dealer.

When you need Dumore Tools, consult your nearest Dumore Industrial Supply Distributor

He maintains an adequate stock of Dumore tools and can give you fast, efficient, low-cost service. His on-the-spot knowledge of your problems enables him to recommend the correct Dumore tool for your requirement, and to insure its successful application.

Printed in U.S.A.

DUMORE PRECISION TOOLS
RACINE, WISCONSIN, U.S.A.